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STUDENT GUIDE  
AND  
ACADEMIC  
PROGRAMS



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UNIVERSITY

Mansfield, PA 16933



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**DIRECTIONS FOR CORRESPONDENCE****Academic Information**

Dr George H. Mullen, Provost  
 Vice-President for Academic Affairs  
 662-4804

**Academic Advising Center**

Dr. Enrico Serine, Director  
 Academic Opportunity Program  
 662-4828

**Act 101 Program**

Mr. David Russell, Director  
 662-4692

**Admissions**

Mr. John Abplanalp, Director  
 662-4243

**Community Services/  
Continuing Education**

Mrs. Susan Sweet, Director  
 662-4244

**Financial Affairs**

Mr. William Yost, Vice-President  
 for Administration & Finance  
 662-4881

**Financial Aid**

Mr. Christopher Vaughn, Director  
 662-4129

**Public Relations/Publications**

Mr. Dennis Miller, Director  
 662-4846

**Residence Life**

Mr. Michael Lemasters, Director  
 662-4932

**Revenue/Financial Accounts**

Mr. Curt Tofts, Controller  
 662-4882

**Student Affairs**

Mr. Joseph Maresco, Vice-President  
 for Student Affairs  
 662-4930

**Student Records**

Mrs. Mary Jane Watkins  
 Coordinator of Student Records  
 662-4202

**ACCREDITATION**

The principal accrediting agencies for Mansfield University are: the Middle States Association of Colleges and Secondary Schools (baccalaureate degree), the National Council for Accreditation of Teacher Education (baccalaureate degree), the National Association of Schools of Music (baccalaureate degree), the Council on Social Work Education (baccalaureate degree), the National Association for Music Therapy (baccalaureate degree), and the Committee for Allied Health Education (baccalaureate degrees), Registered by the PA Board of Nursing.

**MU FACTS****FOUNDED:**

1857; a unit of the Pennsylvania State System of Higher Education.

**CALENDAR:**

The academic calendar consists of a Fall semester which ends before Christmas and a Spring semester ending mid-May. Summer session coursework is also offered May through August.

**PROGRAMS OF STUDY:**

Two-year associate degree in radiology technology and respiratory therapy, four-year baccalaureate degrees in seventy-eight fields in the liberal arts and professional studies, masters degrees in seven fields, plus thirty-five minors.

**DEGREES GRANTED:**

A.A.S., B.A., B.M., B.S., B.S.E., B.S.N., B.S.W., M.A., M.S., M.Ed., plus Teacher Certification.

**SPECIAL OPTIONS:**

Multiple majors, a self-developed major, honors program, internships, departmental honors, independent study, and individualized instruction.

**NUMBER OF FACULTY:**

184 teaching faculty (26% full professors); academic support faculty - 20.

**STUDENT-FACULTY RATIO:**

18:1; Average class size: about 78% of classes have fewer than 30 students; 50% fewer than 20 students; only 5% have 50 or more students. Overall average is 21 students per class.

**LOCATION:**

Mansfield, a borough of 4,000 persons, is located in the Northern Tier of Pennsylvania at the intersection of U.S. 15 and U.S. 6. It is 50 miles north of Williamsport, PA and 30 miles south of Corning, NY. Driving time from: Harrisburg, PA, 3 hours; Scranton, PA, 2 hours; Buffalo, NY, 3 hours; Binghamton, NY, 2 hours; Philadelphia, PA, 4 hours; Pittsburgh, PA, 5 hours; New York City, 5 hours. Daily bus ser-

## **GENERAL INFORMATION**

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vice, north and south, connects all points in the northeast U.S. The campus consists of 174 acres, 32 buildings, recreation areas, tennis courts, playing fields, indoor swimming pool, three auditoriums, and a planetarium.

### **LIBRARY FACILITIES:**

221,000 book volumes; 708,000 micro-volumes; 2,157 current periodicals; 16,993 media items, 27,501 reels of microfilm; 11,000 + music recordings. The Library has implemented automated access to its collections through public access terminals.

### **COMPUTER FACILITIES:**

IBM mainframe, VM/CMS operating system, BASIC, COBOL, FORTRAN, MINITAB, PASCAL, PL/I, SPSS, SQL, WATFIV, IBM PC's: BASIC, COBOL, FORTRAN, word processing, spread sheets.

### **RESIDENCE HALLS:**

Five residence halls house about 1,820 students. Housing options include female only, and co-ed halls. We attempt to house freshmen together in clusters for special programming needs.

### **STUDENT ENROLLMENT:**

3,223 enrolled, 2,743 attend full-time, 1901 females, 1,322 males. Students come from 20 states and 21 foreign countries.

### **STUDENT FINANCIAL AID:**

Over 80% of students receive financial assistance in some form. About 50 scholarships are awarded annually.

### **COLLEGE FINANCIAL DATA:**

Physical plant value \$39,200,000; endowment of \$463,000, and operating budget for 1993-94, \$34,000,000.

### **REGION:**

Year-round outdoor activities are available in the immediate region. Opportunities include hunting, fishing, skiing, camping, hiking, and water sports. Cultural attractions include the Clemens Center of Performing Arts in Elmira, NY, Corning Glass Museum and Rockwell Museum of Western Art, Corning, NY, and Lumbermen's Museum in Galetton, PA.

## **MISSION STATEMENT**

Mansfield University is dedicated to providing an environment that promotes academic and personal growth as well as intellectual, ethical, and aesthetic values. The University serves the region and the national and international communities by developing human and material resources. The university is committed to stimulating continuous pursuit of knowledge and understanding by students, staff, and faculty. To accomplish this mission, Mansfield University pledges:

To provide a liberal education for all its students.

To prepare students for full and purposeful lives through undergraduate and graduate instruction in liberal arts and professional programs.

To plan, develop, implement, and measure its efforts in providing optimum learning opportunities for students of a variety of ages, backgrounds, and needs

To promote affirmative action and equal opportunity.

To maintain a faculty dedicated to teaching and scholarship.

To cooperate with other educational institutions for the achievement of mutual goals.

To provide educational and cultural programs to the general community.

To offer expertise in public service activities.

## ADMISSIONS

### Principles of Enrollment Management

Mansfield University endorses enrollment management principles and reserves the right to limit the total number of freshmen, transfer, and readmission students within specific degree programs as well as the total entering class each entry date. Official entry dates occur in the summer, fall, and spring each academic year. You may be offered admission to a waiting list based upon these principles. Assignment of confirmed spaces will be made after a comprehensive review of academic credentials.

### Requirements For Admission

#### 1. General scholarship as demonstrated by:

- a. graduation from an approved secondary school or equivalent preparation as determined by the Credentials Evaluation Division of the Pennsylvania Department of Education.
- b. a satisfactory score in the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the American College Testing (ACT).

#### 2. Class rank in the upper three-fifths of the graduating class. Completion of the following college preparatory secondary school work (grades 9-12) is recommended as minimum preparation:

English	4 credits
History or Social Studies	4 credits
Laboratory Science (Bio, Chem)	2 credits
Algebra, Plane Geometry, Algebra II	3 credits
Foreign Language	2 credits
Electives (academic)	6 credits
Total	21 credits

When an applicant has been granted admission and fails to enroll, the offer of acceptance will be valid for **only one year** following the entry date originally applied for, provided academic credentials have not changed in the meantime. After one year students must reapply for admission as a new applicant and meet the standards for acceptance current at the time of reapplication.

Applicants offered admission while still enrolled in high school/college are expected to sustain or improve upon the academic scholarship presented when the credentials are initially reviewed. Failure to sustain scholarship, as reflected on final, official transcripts, (including class rank, grade point average, and course/credits scheduled), may result in a revocation of the offer of admission.

The university reserves the right to establish or change admission standards as it deems necessary.

Application for undergraduate admission should be made to the Director of Admissions, Mansfield University, Mansfield, PA 16933.

## ADMISSIONS CATEGORIES

### 1. Regular Acceptance

Regular acceptance standards consistent with current "regular accept" criteria, as stated above - Fall entry.

### 2. Summer Developmental Program Acceptance

This category of acceptance is designed for students who demonstrate a potential for success in college but who:

- a. may not have completed the recommended high school course sequence;
- b. may have high school cumulative grade point average or class rank below those normally required for regular Fall admission;
- c. may have a fundamental weakness in the critical areas of writing skills, mathematical skills, reading/study skills which must be addressed to enhance later success;
- d. may have combinations of the above and low test scores on SAT/ACT which prohibit regular acceptance.

Students selected for this program attend a six-week Summer Developmental Program pursuing course work which is based on diagnostic-placement results. Upon successful completion of the Summer Developmental Program, the participant continues as a matriculated student in the fall term.

The Summer Developmental Program is a component of the Equal Education Opportunity Program. Further details may be obtained by contacting the Director of Admissions (717) 662-4810 and/or Director of Act 101 Program (717) 662-4692; Director of Academic Opportunity Program (717) 662-4828.

## APPLICATION PROCEDURES (Freshmen)

#### 1. Return the application form with a \$25 non-refundable application fee.

\*Applications will be accepted beginning July 1 following the junior year of high school. NOTE: Fees subject to change without notice.

#### 2. Submit an official high school transcript. The student's high school counselor can send a xerox copy of the official transcript. An official copy must bear the seal of the school and signature of an official.

#### 3. SAT scores, including TSWE score or ACT scores should be forwarded to the Admissions Office.

#### 4. Application deadline date is March 1 for the fall semester and November 1 for the spring semester unless the spaces in the entering class are filled prior to these dates.

## **GENERAL INFORMATION**

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Applications received after the deadline date will be considered based on academic credentials and space availability for the entry date requested.

**STUDENTS WHO MISREPRESENT, ALTER, OR OMIT ACADEMIC CREDENTIALS PRIOR TO ENROLLMENT AT MANSFIELD UNIVERSITY WILL HAVE THEIR ACCEPTANCE REVOKED. IF THE MISREPRESENTATION, ALTERATION, OR OMISSION IS DISCOVERED AFTER ENROLLMENT THE STUDENT WILL BE CHARGED WITH VIOLATION OF THE UNIVERSITY POLICY AND WILL BE SUBJECT TO JUDICIAL PROCEDURE.**

## **EARLY DECISION**

Consideration for an early decision for fall entrance will be given to candidates who meet prescribed requirements in terms of secondary school achievement and junior year SAT scores. Those offered admission through early decision will be required to submit scores from a senior year examination of the SAT. Applicants who qualify for early decision will be notified upon receipt of the completed application, application fee, official high school transcript, and junior year SAT/ACT scores.

An advance deposit must be paid within 30 days of the offer of admission to reserve a space in the incoming class.

## **EARLY STUDIES PROGRAM**

The Early Studies Program is designed for outstanding students who are juniors and seniors in high school. Candidates must possess an appropriately high grade point average, earn standardized test scores (SAT/ACT) well above the national/state averages, and be recommended for Early Studies by their high school guidance counselor.

Candidates must file an Early Studies Admissions Application form with the Office of Admissions, pay a \$25 application fee (payable to Mansfield University), and provide an official high school transcript, and standardized test scores. The candidate must be recommended by the high school guidance counselor; other letters of recommendation are suggested.

Early Studies candidates may elect one of four options for pursuing course work depending on their intent, scholastic achievement, and class standing within their high school. These options are:

**OPTION A:** High school seniors who meet the admissions requirements and are interested in attending Mansfield University full-time in lieu of attending high school in their senior year, upon final approval and acceptance, are considered freshmen at MU. All policies and procedures applicable to university freshmen apply to them. Candidates for this option are responsible for seeking and receiving permission from their high school administration/ school board to attend MU in lieu of their senior year of studies within

high school. It is strongly recommended that candidates secure a written statement of the approval, as well as, a statement assuring them that, upon successful completion of the freshman year of studies and presentation of an official transcript of scholastic achievement, a high school diploma will be awarded by the high school of origin. Any specific course requirements which must be fulfilled during the freshman year of college studies to satisfy requirements for a high school diploma, must be identified by the guidance counselor on the Early Studies Application form. Candidates for this option must also file a regular Freshman Admissions Application.

**OPTION B:** High school seniors who rank in top 10% of current class, are enrolled in a college preparatory curriculum and are within two (2) Carnegie Units of satisfying high school diploma requirements are eligible to enroll for a maximum of nine (9) credits during the fall/spring semester and six (6) credits during the summer session.

**OPTION C:** High school seniors with a minimum 3.5 quality point average (QPA) in an academic curriculum, rank in the upper 20%, and have an SAT score of 1000 or ACT score of 25 are eligible to enroll for a maximum of six (6) credits during the fall/spring semester and six (6) credits during the summer session.

**OPTION D:** High school juniors with a minimum 3.5 quality point average (QPA) in an academic/college preparatory curriculum and have achieved a score of 1000 on the SAT or PSAT or 25 on the ACT are eligible to enroll, upon approval, for a maximum of three (3) credits during the summer session only.

**Approval/Acceptance Into the Early Studies Program Is a two-stage process:**

**STAGE ONE:** Candidates must file the appropriate application form(s), submit official high school transcripts, standardized test scores, and letters of recommendation, including a recommendation from the high school guidance counselor. The application is reviewed by the Admissions Committee and Director of Admissions. If the candidate is deemed eligible, they will be notified of a tentative acceptance into the Early Studies Program pending results of diagnostic-placement testing. Instructions for scheduling the diagnostic-placement tests will accompany notification of stage one approval.

**STAGE TWO:** Upon completion of the diagnostic-placement testing, credentials will be re-evaluated, together with the diagnostic-placement test results and the candidate notified of either final approval or disapproval of their application. Candidates must demonstrate basic skill competencies consistent with their academic achievement in high school to receive final approval for entry as an Early Studies student. The need for all developmental course work must be waived by receiving satisfactory diagnostic-placement test scores. The need to take any developmental

course work in the basic skill areas - reading, writing, or mathematics - will result in disapproval of the application.

Inquiries regarding the Early Studies Program should be directed to the Director of Admission, (717) 662-4810.

## **SPECIAL ART/MUSIC PROGRAM REQUIREMENTS**

Applicants for an art degree, having satisfied general college admissions requirements and prior to formal acceptance into an art program, must present a portfolio of their work to the Art Department for evaluation.

Applicants for a music degree, once they have satisfied the requirements for general college admission, must audition for acceptance into the music department. Acceptance is based upon a demonstration of both musical aptitude and musical accomplishment. For further information contact the music department (717) 662-4710.

## **TRANSFER ADMISSION POLICY**

Students are normally eligible for transfer admissions consideration if they have attained an overall 2.0 cumulative quality point average (QPA) at an accredited post-secondary institution. Exceptions are as follows: Nursing, 2.5 QPA; Elementary & Secondary Education, 2.75 QPA; and Special Education, 2.5 QPA. Credit will only be awarded for college level courses completed in accredited colleges/universities. "Accredited" is defined to include accreditation by any of the seven regional accrediting bodies only, e.g. Middle States for this region.

## **APPLICATION PROCEDURES (Transfer)**

1. Submit transfer application and official transcript(s) from all post-secondary institutions previously attended. Transcripts and admission data should be sent to the Director of Admissions before March 1 for the fall semester or before November 1 for the spring semester. Applications received after the deadline date will be considered based upon academic credentials and space availability for the entry date requested.

2. Applicants who have earned less than 32 credits in college level work, are required to submit an official high school transcript and an official record of the Scholastic Aptitude Test (SAT) or the American College Test (ACT). SAT/ACT test results will not be required if the applicant is 21 years old or has been out of high school for three or more years.

3. Applicants for fall and spring semesters are normally notified on a rolling basis prior to their desired enrollment date. An evaluation of credits accepted in transfer will be made upon acceptance.

4. If an applicant is approved for transfer to MU and is en-

rolled as a student at another institution, it will be understood that such admission has been granted on a provisional basis until all records from the previous institution have been reviewed and finalized.

## **TRANSFER EVALUATION**

Following acceptance into the university, an evaluation of courses taken at previous institutions is made by the Transfer Coordinator in consultation with the chairperson of the student's major department.

Credits will be evaluated on a course-by-course basis. General Education requirements will not automatically be met.

Any exceptions to this policy are specified in articulation agreements of transfer between Mansfield and two-year institutions. Presently, agreements exist with Corning Community College, Harrisburg Area Community College, Keystone Junior College, Lackawanna Junior College, Lehigh County Community College, Luzerne County Community College, Pennsylvania College of Technology, and Reading Area Community College.

### **Transfer - Grades**

A. No grades or quality point average (QPA) transfer from a previous institution. Credits transfer, but not grades.

B. Only those courses for which a "C-" grade or better has been earned will be considered for transfer credit to Mansfield University unless the student has earned an Associate of Arts, Associate of Science or bachelors degree from an accredited two or four year college/university. Consistent with this policy, credit will only be awarded for those courses with transcript notations such as "Pass", "Credit by Examination", and "Satisfactory" when a grade of "C-" or better is required for the award of such grade.

### **Transfer - Credits**

A. The following is a brief explanation of the most common grading systems used in addition to the semester hour - quarter hours and units - which are utilized at other institutions. There are others. The system employed by a college will usually be indicated on the transcript. Questions should be addressed to the Transfer Coordinator, Beecher House.

#### **1. Quarter-Hours**

In converting to the semester hour system, quarter hours are multiplied times 2/3; thus three-quarter hours are equivalent to two semester hours, four-quarter hours equals 2 2/3, five quarter hours equal 3 1/3, etc. The total number of quarter hours multiplied times 2/3 results in the total number of semester hours accepted in transfer. Any excess fraction in the total number of transfer credits is discounted.

2. Units

One unit is usually equal to 3.5 semester hours. Thus, the number of units is multiplied times 3.5. A one-unit mathematics course would be equivalent to 3.5 semester hours. The treatment of fractional hours is the same as stated for the quarter-hour system in the preceding paragraph.

B. The number of credit hours that transfer from another institution is the same number awarded for completion of course work at that college/university. For example, some institutions do not give credit for physical education courses. A student accepted from such an institution is considered to have met the physical education requirement at Mansfield for as many PE courses as taken previously, but no credit would be awarded. Similarly, Introductory Biology might carry three credits at another institution and three credits would be given in transfer for such course even though the equivalent biology at Mansfield is four credits. Furthermore, if a U.S. History course is four credits at another institution, four credits would be given in transfer even though U.S. history at MU is a three credit course.

C. Because of the time sequence necessary for the development of skills required by the music curriculum, students are advised to transfer as early as possible. Otherwise, it becomes increasingly difficult to complete the curriculum within the normal four-year span of time. Credits in the music area must be validated by examination before they may be accepted for transfer. This is to insure that the student is capable of successfully completing the remaining courses which will be required.

D. Fifty percent of major related courses must be completed at Mansfield University.

### Maximum Hours Accepted In Transfer

Mansfield University will not accept more than 67 semester hours of course work in transfer from accredited two-year junior or community colleges. There is no limit on credits accepted from a four-year accredited college/university.

### Non-Accredited Colleges

Credits presented from non-accredited colleges or universities are not eligible for transfer consideration. "Accredited" is defined to include accreditation by any of the seven regional accrediting bodies only, e.g., Middle States Association for this region.

### FINANCIAL AID

The student Financial Aid Office provides information and assists students in meeting college expenses. It attempts to inform students of application procedures and deadlines, types of aid available, eligibility requirements, and other pertinent data.

As a state university, Mansfield's basic fees are substantially lower than those of private colleges; the public subsidy is reflected in the fees to all students. While remaining committed to offering financial aid to able students who can show evidence of financial need, Mansfield University must, however, recognize that the basic financial responsibility of acquiring a higher education continues to be that of the student and their family.

Matriculation at MU is by semester. The university expects each entering student to meet the expenses of the upcoming term without assistance unless such aid has been previously arranged and confirmed. MU participates in the major federal and state financial aid programs. The types of aid available include the Pell Grant, PHEAA state grant, and the three campus-based aid programs. The three campus-based aid programs are College Work Study, Supplementary Educational Opportunity Grant, and the Perkins Loan (formerly National Direct Student Loan). Students may also apply for the Stafford Loan (formerly Guaranteed Student loan) from their bank. Other loan programs available include the Parent Loan for Undergraduate Students (PLUS) and Supplemental Loan for Independent Students (SLS).

The following points are emphasized:

1. Students should file for financial aid immediately upon confirmed admission to MU.
2. To apply for aid, all students, regardless of what state they live in, must file the Free Application for Federal StudentAid (FAFSA), PHEAA Supplement, and the institutional application. The filing of these two documents constitutes a completed application for all available types of aid with the exception of the Stafford Loan application which may be obtained from the student's hometown bank. Out of state students who have filed the Financial Aid Form (FAF) are also required to file the PHEAA/FAFSA form.
3. Stafford Loan borrowers should note that as of October 17, 1987, a PHEAA/Federal StudentAid Form must be filed in addition to the loan application itself. All guaranteed loans are now based upon need. Unsubsidized loans are available for those students who do not have a demonstrated need.
4. The important deadline dates for campus-based aid are April 15 for fall semester and summer sessions and November 1 for spring semester. PHEAA has a deadline of May 1 for the state grant program.
5. Students must mention Mansfield University (code 003324) as an institution of choice on the PHEAA/FAFSA form. Failure to indicate Mansfield as an institution of choice will result in our inability to access the student's need analysis.
6. In advancing to the next financial aid grade level, a student will be considered a sophomore with 30-59 credits, a

junior with 60-89 credits, and a senior with 90+ credits.

This is important for Stafford Loan purposes.

7. Students should refer to the Financial Aid brochure for details on financial aid programs available and deadline dates. Students and parents may call the Financial Aid Office at (717) 662-4129 for consultation at any time.

## Part-time Campus Employment

Part-time student employment at the university is available in all areas of campus life except the cafeteria. Such employment is awarded to students who have shown evidence of financial need. Requests for student employment are made after formal acceptance and payment of the advance registration deposit. Students must have a current PHEAA/FAFSA form plus an institutional aid application on file to establish eligibility. The university maintains funds through its own institutional program allowing work study awards. Applications are available from and submitted to the Office of Financial Aid.

## ACADEMIC PROGRESS

Federal regulations require that a student must be making academic progress to continue receiving financial aid in any of the Title IV Programs. Title IV programs include College Work Study, Perkins Loan (formerly National Direct Student Loan), Supplemental Education Opportunity Grant, Pell Grant, and Stafford Loan (Guaranteed Student Loan). In addition, state grants also must be reviewed under academic progress guidelines.

To make "satisfactory progress," full time students must pass at least 24 credits per academic year. Records will be monitored each year. If at the end of the fall semester a student does not pass at least 12 credits, it is imperative that an appropriate number of credits be scheduled, over 12 if possible, in the spring semester to meet the satisfactory progress guidelines. If at the end of the spring semester the student has not passed 24 credits, they will be notified of ineligibility for aid for the following academic year or until the deficiency has been corrected. Students may enroll for credits during the summer. Those new credits earned totaled with prior credits completed may be used to satisfy the academic progress requirements. If aid is terminated for one semester, it may be reinstated for the following semester after the 24 credit requirement has been satisfied. Non-degree, part-time students are not eligible for any financial aid.

Repeating credits already passed will not count toward the 24 credit progress requirement. If a student registers for 12 credits in the fall and receives a "D" grade in a three credit course and again schedules 12 credits for the spring se-

mester and repeats the "D" grade from fall, the student will only be credited with 21 credits toward progress. Students who sit out one full year (two semesters) will be deemed to be making academic progress upon their return, for financial aid purposes. It should be noted that any student who only passes 24 credits per academic year will not be able to graduate in four years or eight semesters. In fact, a student who only completes 24 credits per academic year on a consistent basis will need over five years or 11 semesters to complete a degree.

MU students are permitted to receive financial aid for 10 semesters or five years, unless the specific aid program is limited to a shorter period of time. Some aid programs are limited to eight semesters or four years, and students could be eliminated from those programs even though they have not completed their undergraduate degree. Part-time students will be entitled to aid over a period of time on a prorated amount based on part-time enrollment.

Academic year completed	1	2	3	4	5
Number of credits earned	24	48	72	96	128

In addition to the 24-credit requirement stated above, students must maintain the necessary quality point average (QPA) as outlined below:

0-18	credit hours attempted - 1.00 QPA
19-37	credit hours attempted - 1.60 QPA
38-56	credit hours attempted - 1.80 QPA
57 +	credit hours attempted - 2.00 QPA

Students are allowed to retain financial assistance provided they are meeting the QPA requirements or are officially permitted to remain at Mansfield and are in compliance with the 24 credit regulation.

A student who received Title IV aid for the first time for an award year beginning on or after July 1, 1987 must have, at the end of their second academic year, an average of "C" which is consistent with Mansfield graduation requirements.

## Mitigating Circumstances

Students not meeting the Academic Progress requirement may appeal, in writing, to the Director of Financial Aid to have aid restored based upon mitigating circumstances. Such circumstances include injury or illness to the student, death of a close relative, or other special circumstances. Requests for such exceptions must be received in the Financial Aid Office within two weeks of notification that aid has been terminated. Documentation of the mitigating circumstance(s) must be provided by the student. The Financial Aid Director will assemble the information from the request and present the data to the Financial Aid Advisory Committee for review.

## **GENERAL INFORMATION**

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A detailed explanation of all financial aid programs and regulations is available upon request from the Office of Financial Aid.

## **Veterans Benefits**

Eligible students may qualify for Veterans Educational Benefits through several different programs run by the VA, as well as, financial aid. The application procedure for financial aid is the same as that outlined for any regular student. Forms are available through the Veterans Certification Official, South Hall.

## **ACADEMIC POLICIES**

The university reserves the right to make changes in curricula, degree requirements, course offerings, and all academic regulations at any time when, in the judgement of the faculty, the President, and Council of Trustees, such changes are in the best interest of the students and the university. University policy procedures can be found in the student handbook, "The Password".

## **GRADUATION REQUIREMENTS**

It is the student's responsibility to know the university requirements for graduation and those of their major.

To graduate from Mansfield University with an associate degree, a student must meet the following requirements.

- (1) Pass a minimum of 67 credit hours.
- (2) Earn a minimum 2.0 cumulative quality point average (QPA) in all work attempted and in the major.
- (3) Complete requirements for the major and the degree.

To graduate from Mansfield University with a baccalaureate degree, a student must meet the following requirements.

- (1) Pass a minimum of 128 credit hours plus any required preparatory (090) courses. Preparatory (090) courses completed increase the total number of credit hours required for graduation.
- (2) Earn a minimum 2.0 cumulative quality point average (QPA) in all work attempted and in the major.
- (3) Complete requirements for general education and for the major.
- (4) Complete 40% of the credits required for a degree at the 300-400 level.
- (5) Complete the Writing Across the Curriculum Program.
- (6) Complete a second year language proficiency or minor for a B.A. degree.

To graduate from Mansfield University with teacher certification a student must meet the following requirements.

- (1) Earn a minimum 2.5 cumulative quality point average (QPA) in all work attempted.

(2) Complete a teacher preparation certification program approved by the Pennsylvania Department of Education.  
(3) Complete all requirements for a baccalaureate degree.  
(4) Pass the National Teachers Examination (NTE) Core Battery and Specialty Area tests. Contact the university certification officer, Retan Center or campus testing officer, South Hall for NTE information.

(5) Students may earn a teaching degree with less than a 2.5 QPA, but the university will not recommend them to the Pennsylvania Department of Education for certification.

Some programs and majors have degree requirements in addition to the university graduation requirements. Students should consult their departmental advisor for such requirements.

No student may be granted an associate degree from the university without a minimum residency of fifteen (15) credit hours earned from Mansfield.

No student may be granted a baccalaureate degree from the university without a minimum residency of one year (32 credit hours earned from Mansfield). Minimum residency means the senior year (the last 32 credit hours) is taken through the university; exceptions may be made with approval from the Office of The Provost.

No more than 67 credits will be accepted in transfer from an accredited two-year junior or community college toward a baccalaureate degree. Transfer credit may be awarded for up to 50% of the major requirements including major-related electives. If the remaining credits do not meet MU guidelines for general education, they will be applied as free electives.

Students receive a "Graduation Outlook" form upon completion of eighty (80) credit hours. The "Graduation Outlook" notes courses and/or requirements still necessary to be completed for graduation including any deficiency in the cumulative quality point average (QPA) in all work attempted and in the major. Students who are accelerating may request an "Outlook" earlier.

## **PREPARATORY (090) COURSES**

Students entering Mansfield University will be evaluated in the areas of Mathematics, Study Skills, and Written Communication in order to assure a minimal level of competency. In Mathematics a student's previous preparation is assessed and in some instances students will take a placement examination in order to determine whether or not MA 090 is required. A student's SAT verbal score is used to determine whether or not ED 090 is required. A writing placement examination is administered to all entering students and placement will be made in ENG 090 or ENG 112 on the basis of their performance on that essay.

If 090 courses are necessary, the minimum number of credits required for graduation could increase from 128 to 137 (if all three 090 courses are required). Students required to take ED 090 will be scheduled for the course in one of their first two regular semesters and, once placed in the course, the course cannot be dropped. Academic policy requires that any 090 courses be taken during the first 57 credit hours attempted.

## WRITING ACROSS THE CURRICULUM

Writing across the curriculum requirements are satisfied by completing ENG 112, ENG 313, and three writing-designated courses (at least one of which must be an upper-level course). The Writing Across the Curriculum Program helps students to become comfortable and competent writers through assignments in designated writing courses which require different conventions of purpose and audience, different formats and styles, and different kinds of writing as it is done in various disciplines. These writing courses are drawn from all areas of the curriculum and involve students in regular, frequent writing, much of which the instructor responds to.

The rules for meeting this requirements are different for transfer students and may be found in the "Policies and Procedures" Handbook.

## GENERAL EDUCATION

### Philosophy

The objective of the general education component of an undergraduate degree is to provide students with a foundation for lifelong learning and to enable them to cope with a rapidly changing world as responsible citizens.

General education is designed, therefore, to enable students to continue to learn independently of formal classroom instruction. It extends throughout the undergraduate experience and into campus and community life. General education is designed to encourage students to develop their abilities to observe, to analyze and resolve problems; essential skills in a pluralistic and global environment. Finally, general education makes students aware of the concept of ethical and moral responsibility to self and to society.

General Education complements major course work and assists students in taking their proper place in society by helping them comprehend humankind: its cultures and history, the philosophies by which it lives, the means by which it communicates, and the arts and sciences which better its existence.

### Program Overview

There are three types of courses in General Education: Core, Distribution Requirements, and General Education Electives.

### Core Courses

Core courses are those so important to the education of all students that they are required of every undergraduate student attending the university in a Bachelor's Degree Program. These include English Composition, Oral Communication, Introduction to one of the Fine Arts, and Health & Physical Education courses as follows:

#### COMMUNICATION SKILLS (9 credits)

COM 101	Oral Communication	(3)
ENG* 112	Composition I	(3)
ENG**313	Composition/Literature II	(3)

#### HEALTH AND PHYSICAL EDUCATION (3 credits)

HPE 100	Health	(2)
HPE 101-199		

#### Physical Education

(1-3)

#### FINE ARTS (3 credits)

ARH 101	Introduction to Art	(3)
MUS 100	Introduction to Music	(3)
THT 110	Introduction to Theater	(3)

\*All students should take ENG 112 (and ENG 090 if necessary) during their first year. Transfer students who have already taken a year of composition will receive credit for ENG 112 and for electives.

\*\*ENG 313 must be passed with a grade of "C-" or better.

### Distribution Requirements

#### Interim Distribution Requirements

The General Education Distribution Requirements are satisfied by taking basic courses in the Liberal Arts and Sciences Disciplines. The student must select combinations of courses from these disciplines to complete the requirements in four of the five groups shown below.

In addition to courses listed below as satisfying requirements for Groups I, II, III, IV, and V, the **Interim General Education Program (effective Fall 1994 and Spring 1995)** permits all 100 and 200 level courses with prefixes listed in Groups I - V and a select number of 300 and 400 level courses (listed in the Master Schedule for the appropriate academic term) to be counted toward meeting group requirements. Students should note that this **Interim opening of general education is not retroactive**.

#### GROUP I, HUMANITIES (MINIMUM 9 CREDITS)

ENG 115	Intro to Literature	(3)
ENG 203	Readings in Ancient Literature	(3)
ENG 204	Readings in World Literature	(3)
ENG 207	Readings in British Literature	(3)
ENG 208	Readings in American Literature	(3)
HST 101	Western Civilization I	(3)

**GENERAL INFORMATION**

HST 102 Western Civilization II	(3)
HST 104 The World in The 20th Century	(3)
HST 201 American History through Civil War	(3)
HST 202 American History - Reconstruction to Present	(3)
PHL 201 Introduction to Philosophy	(3)
PHL 202 Contemporary Moral Problems	(3)
PHL 230 Introduction to Logic	(3)
PHL 280 Philosophy of Religion	(3)

PSC 210 World Politics	(3)
PSC 212 Comparative Politics	(3)
PSY 101 Introduction to General Psychology	(3)
PSY 210 Psychology of Family Relations	(3)
PSY 212 Human Sexuality	(3)
PSY 290 Life Span Development	(3)
SOC 101 Introduction to Sociology	(3)
SOC 121 Contemporary Social Problems	(3)
SOC 232 American Family Systems	(3)

**GROUP II, FOREIGN LANGUAGES**

(MINIMUM 6 CREDITS IN ONE LANGUAGE)

Any course offered by the Foreign Language Department will satisfy this requirement.

**GROUP III, NATURAL SCIENCES (MINIMUM 9 CREDITS)**

AST 105 Exploration of the Solar System	(3)
AST 106 One Possible Universe	(3)
AST 108 Observing the Autumn Sky	(1)
AST 109 Observing the Winter Sky	(1)
AST 110 Observing the Spring Sky	(1)
AST 111 Observing the Summer Sky	(1)
BIO 101 Man and The Biological World	(4)
BIO 102 Contemporary Biological Problems	(3)
BIO 210 Zoology	(4)
BIO 220 Botany	(4)
CHM 101 Introductory Chemistry	(4)
CHM 102 Organic and Biochemistry	(4)
CHM 103 Chemistry and The Environment	(4)
CHM 111 General Chemistry I	(4)
CHM 112 General Chemistry II	(4)
GEL 101 Earth Resources and Energy	(3)
GEL 102 Environmental Geology	(3)
GEL 121 Physical Geology	(3)
GEL 122 Historical Geology	(3)
PHY 130 Household Physics	(3)
PHY 151 Conceptual Physics I	(4)
PHY 152 Conceptual Physics II	(4)
PHY 188 General Physics I	(4)
PHY 211 General Physics II	(4)

**GROUP IV, MATHEMATICS (MINIMUM 6 CREDITS)**

Any course (except MA 090 and 104) offered by the Mathematics Department will satisfy this requirement.

**GROUP V, SOCIAL SCIENCE (MINIMUM 9 CREDITS)**

ANH 101 Cultural Anthropology	(3)
ANH 102 Human Origins and Evolution	(3)
ECO 101 Principles of Macroeconomics	(3)
ECO 102 Principles of Microeconomics	(3)
ECO 204 History of Economic Thought	(3)
ECO 205 Contemporary Economic Problems	(3)
GEG 101 World Regional Geography	(3)
GEG 102 Human Geography	(3)
GEG 111 Physical Geography	(3)
GEG 222 Environmental Land Use and Natural Resources	(3)
PSC 100 Introduction to Politics	(3)
PSC 101 American Politics	(3)
PSC 102 State and Local Politics	(3)

**General Education Electives**

Students may select any course, regardless of level (100-400), from the same disciplines approved for Distribution Requirements (Groups I - V). Such courses allow the student to go beyond the introductory level in a Liberal Arts area should he/she choose to do so. In addition, any Art History (ARH), Art (ART), Communications (COM), Honors (HON), Music (MU), Theatre (THT), or Women's Studies (WS) course may also be used as a general education elective.

**Professional Elective (One Course)**

A group of introductory courses in certain professional departments are approved as an acceptable General Education Elective. This permits the student to investigate one professional program as a possible major or minor within General Education. If this area is then selected as a major, the course must be replaced with another General Education or Professional course. One approved Professional Course may be selected from the following:

BFC 317 Fish Management	(3)
BUS 130 Introduction to Business and Management	(3)
CIS 103 Introduction to Microcomputers	(3)
CJA 100 Introduction to the Administration of Criminal Justice	(3)
ED* 100 Schools & Society	(3)
DIT 111 Introduction to Nutrition	
RPL 102 Introduction to Regional Planning	(3)
SPE 101 Exceptional Persons in Society	(3)
SWK 101 Human Services	(3)
TRT 102 Introduction to Travel Tourism	(3)

\*Any student enrolled in a program leading to teaching certification may not take ED 100 as a Professional Elective for General Education Electives.

**Special Rules**

The following special rules govern the General Education Program:

1. Students must satisfy the minimum requirements in four out of five Groups listed under Distribution Requirements.
2. A maximum of six credits from the major discipline may be used to fulfill Distribution Requirements (Groups I - V) and General Education Electives. Professional courses are excluded except under special rule #9.

3. No more than two courses with the same prefix may be used to complete any Group Distribution Requirement (Group I-V). A maximum of 12 credits with the same prefix may be used to complete distribution requirements including General Education Electives.

4. A maximum of 18 credits from approved courses or disciplines from one Group (Groups I, III or V) may be used to meet Distribution Requirements and General Education Electives. For example, 12 credits in Group I and 6 credits from the same discipline used in the General Education Elective area is the maximum allowed in a Humanities discipline. In the case of Groups II and IV, only 12 credits are permitted.

5. Courses from Disciplines approved for Distribution Requirements (Groups), may be used as General Education Electives except MA 090 and 104.

6. A minimum of 24 credits in Distribution Requirements (Groups) is required for Bachelor of Music Degree programs, forty one (41) credits in Distribution Requirements (Groups) and General Education Electives is required for the Bachelor of Science in Nursing program, and forty two (42) credits in Distribution Requirements (Groups) and General Education Electives is required for all other Bachelor degrees.

7. Six credits in a single language is required when completing Group II, Foreign Language.

8. Physically disabled students may complete the HPE 101-199 requirement by special arrangement.

9. One Professional Elective is allowed from those approved. However, it must be replaced should the student subsequently choose to major in that field.

## GRADING

Professors will provide to students a written syllabus prior to the end of the first week of class which will include the criteria for academic evaluation. Mansfield University employs a 4-point grading scale, as shown below, in evaluating academic performance.

GRADES	INTERPRETATION	QUALITY POINTS
A	Excellent	4.0
A-		3.7
B+		3.3
B	Above Average	3.0
B-		2.7
C+		2.3
C	Good Standing	2.0
C-		1.7
D+		1.3
D	Minimally Passing	1.0
D-		0.7

F Failure 0.0

The following designations may be used in addition to the grades shown above:

I	-	Incomplete
S	-	Satisfactory (D- grade or better)
U	-	Unsatisfactory
AU	-	Audit
EX	-	Credit by Examination (D- grade or better)
P/F	-	Pass/Fail (D- grade or better)
W	-	Withdrawal from a course after the drop period

The cumulative quality point average (QPA) is determined by dividing the total number of quality points earned by the total number of credit hours of work attempted. The cumulative QPA is the index by which a student's academic standing is judged.

## ACADEMIC STANDARDS REQUIREMENTS

All matriculating students seeking an undergraduate degree must meet the minimum academic standards of the institution. The following is the minimum academic requirements for continuation at Mansfield.

0-18	credit hours attempted - 1.00 QPA
19-37	credit hours attempted - 1.60 QPA
38-56	credit hours attempted - 1.80 QPA
57 +	credit hours attempted - 2.00 QPA

Credit hours attempted include transferred credit hours.

## ACADEMIC MAJOR/MINOR REQUIREMENTS

The requirements for a student's major and/or minor appear on the Evaluation Record (ER) which is maintained in the Student Record's Office. Students must complete the major/minor requirements that exist at the time they are admitted to the university. Should major/minor requirements change, it will affect new students and current students who change their program. Students readmitted following a break of more than one semester fall under all university policies in effect at the time of readmission.

## ACADEMIC MINOR

A minor consists of no less than fifteen and no more than 24 credit hours. Students must attain a minimum 2.0 cumulative quality point average (QPA) in all courses required. The Bachelor of Arts degree candidate must choose between a minor or second year foreign language proficiency. Though not a requirement for other degrees, a minor can be used to enhance the student's academic experience and will appear on their permanent record. Minor forms are

ART  
BUSINESS ADMINISTRATION  
CHEMISTRY  
COMPUTER SCIENCE  
CREATIVE WRITING  
CRIMINAL JUSTICE ADMINISTRATION  
CULTURAL ANTHROPOLOGY  
ECONOMICS  
ENGLISH LITERATURE  
ETHNIC STUDIES: AFRICAN-AMERICAN  
ETHNIC STUDIES: NATIVE NORTH AMERICANS  
FRENCH  
GEOGRAPHY  
GEOLOGY  
GERMAN  
HISTORY  
INFORMATION SYSTEMS  
INTERNATIONAL STUDIES  
MATHEMATICS  
MUSIC  
PHILOSOPHY  
PHYSICS  
POLITICAL SCIENCE  
PSYCHOLOGY  
PSYCHOLOGY OF HUMAN DEVELOPMENT  
REGIONAL PLANNING  
SOCIAL WELFARE  
SOCIOLOGY  
SPANISH  
THEATRE  
TRAVEL-TOURISM  
WOMEN'S STUDIES

available in the Student Records Office, South Hall.

### **CLASS STANDING**

Class standing is determined by the total number of semester hours earned including credits accepted in transfer from other accredited colleges.

Freshman	0-32 semester hours earned
Sophomore	33-63 semester hours earned
Junior	64-95 semester hours earned
Senior	96 + semester hours earned

### **STUDENT LIFE AND SERVICES**

The educational experience an individual receives at Mansfield extends beyond the walls of the classroom. Students gain knowledge from meeting others, sharing ideas, and becoming involved in the formal and informal opportunities that exist in a broad range of activities and services available to them.

### **ORIENTATION**

New Student Orientation is a program aimed at helping students bridge the gap from high school or a previous college experience to Mansfield University.

Students entering in the fall are asked to participate in one of several two-day orientation sessions that are conducted throughout the summer while students entering in January participate in a similar program held just prior to the beginning of the Spring Semester.

### **RESIDENCE LIFE**

Recognizing the value of the experiences that students obtain in the community living environment, Mansfield University requires students not commuting from the home of a parent or legal guardian to live in campus residence halls. To help enhance this experience, the Residence Life Staff works with student staff (RAs), the residence hall councils, and interested faculty in an effort to provide a positive environment which will help supplement and expand the education of each student.

#### **Residence Requirements**

1. All students are required by the university to reside in residence halls when there is space available.
2. Exceptions to the above may be made on the basis of age, place of permanent residence, or marital status. Requests should be made in writing to the Director of Residence Life.
3. Each student, prior to occupying a room, must sign a **Residence Hall Agreement** provided by the university and pay all designated fees and deposits.
4. Board in the university dining hall is mandatory for students residing in residence halls. Exemptions for medical reasons may be requested through the Office of the Vice President for Student Affairs.
5. All students residing in residence halls are required to abide by regulations as prescribed by the university and/or residence hall council.
6. Mansfield University reserves the right to enter and inspect all residence hall rooms, but will in all possible circumstances recognize and respect the individual's right to privacy.
7. Checking into a university residence hall implies acceptance of terms of the **Residence Hall Agreement**.

### **HEALTH SERVICES**

Primary health care is provided to our students through an on-campus clinic. Student visits, medications, and most prescription drugs are provided at no additional cost.

Residence hall staff and campus police receive appropriate training allowing them to handle medical emergencies, and our community ambulance service is available on a 24-hour basis.

Students are asked to have some form of health/accident insurance. The university makes available, to those who don't have their own, a hospital, surgical, and medical insurance program which provides full calendar year protection.

### **MANSFIELD UNITED CAMPUS MINISTRY**

The Mansfield United Campus Ministry represents, through its ecumenical presence, the concern for the spiritual dimension in the development of the whole person. Through word, witness, and worship it fosters among students and faculty a ministry of service rooted in faith, hope, and love. This service takes the form of a variety of programs designed to meet not only the needs of the university community, but also the needs of the community at large such as ministry to the aged and orphans; workshops and seminars on contemporary religious issues, prayer, and Bible study groups; folk liturgies, and experimental worship.

**COURSE PREREQUISITES**

Prerequisites required for a course are usually found in the course description. In some instances, however, prerequisites may not be listed but still required by a department. Students should consult their advisor or department chairperson to be sure all course work meets departmental requirements.

**SEMESTER SEQUENCING FOR PROGRAMS**

The following represents a suggested eight-semester sequence for a program. A student's actual schedule for any semester may vary from the sequence indicated, and course numbers and course descriptions may change as the result of curricular action. Students need to contact their departmental advisor regarding such changes.

**ACCOUNTING**

Degree: BS, Business Administration

Our accounting program begins with the daily details of accounting and continues to the larger issues of policy and ethics. Core courses include principles of accounting, marketing, business law and ethics, and quantitative business analysis. Other courses range from cost accounting and auditing to principles of macroeconomics and analytical geometry and calculus.

Some careers: An accountant in an accounting firm, industry, or a certified public accountant in a private accounting firm.

**ACCOUNTING**

FIRST SEMESTER		SH
ACC 110 Prin of Accounting I	3	
COM 101 Oral Communication	3	
ECO 101 Prin of Macroecon	3	
ENG 112 Composition I	3	
Electives	3	

SECOND SEMESTER		SH
ACC 111 Prin of Accounting II	3	
ECO 102 Prin of Microecon	3	
SOC 101 Intro to Sociology	3	
Fine Arts Elective	3	
Electives	3	

THIRD SEMESTER		SH
ACC 310 Intermediate Acctg I	3	
BUS 230 Management Principles	3	
CIS 203 Software for Bus Appl	3	
Electives	4	

FOURTH SEMESTER		SH
ACC 311 Intermediate Acctg II	3	
BUS 301 Intro to Finance	3	
BUS 330 Marketing	3	
MA 125 Intro to Stats	3	
Electives	4	

**FIFTH SEMESTER**

ACC 350 Cost Accounting I	3
BUS 349 Quantitative Bus Anly	3
ENG 313 Composition/Lit II	3
MA 170 OR 231	3
PHL 202 Contemp Moral Probs	3
Accounting Elective (300/400 level)	3

**SIXTH SEMESTER**

BUS 350 Production Management	3
BUS 451 Behavior Approach to Mgmt	3
ECO 311 Money and Banking	3
Accounting Elective (300/400 level)	3
Electives	6

**SEVENTH SEMESTER**

ACC 320 Advanced Accounting I	3
BUS 402 Corporate Finance	3
BUS 410 Business law I	3
Electives	6

**EIGHTH SEMESTER**

ACC 400 Auditing	3
BUS 441 Financial Statement Anly	3
BUS 490 Business Policy	3
Electives	6

Degree: Bachelor of Science  
 Major: Business Administration  
 Emphasis: Accounting  
 Department: Business Administration  
 Chairperson: Dr. Gopalan Kutty  
 Location: Home Economics Center  
 Phone: (717) 662-4516

**ACTUARIAL SCIENCE**

Degree: BS, Mathematics

An actuary is an expert in the design, financing, and operation of insurance programs which include life and health insurance, casualty insurance, and public and private pension plans. Suggested mathematics electives are MA 315 Applied Regression Analysis and MA 345 Real Analysis I. Members of the mathematics faculty will aid in the students preparation for the first three actuarial examinations.

Some Careers: Working for an insurance company, consulting actuarial firm, government, or university.

**ACTUARIAL SCIENCE**

FIRST SEMESTER		SH
ACC 110 Prin of Accounting I	3	
COM 101 Oral Communication	3	
ENG 112 Composition I	3	
MA 231 Calculus I	4	
Electives	3	

**SECOND SEMESTER**

ACC 111 Prin of Accounting II	3
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MA 232 Calculus II	4
PHY 188 General Physics I	4
Fine Arts Elective	3
Electives	3
<b>THIRD SEMESTER</b>	
ECO 101 Prin of Macroecon	3
MA 233 Calculus III	4
MA 260 Discrete Structures	3
PHY 211 General Physics II	4
Electives	3
<b>FOURTH SEMESTER</b>	
ECO 102 Prin of Microecon	3
MA 280 Linear Alg & Matrix Thry	3
MA 314 Appd Probability & Stats	3
Electives	7
<b>FIFTH SEMESTER</b>	
BUS 130 Intro to Bus & Mgmt	3
ENG 313 Composition/Lit II	3
MA 308 Operations Research	3
MA 371 Math Statistics I	3
Electives	4
<b>SIXTH SEMESTER</b>	
MA 372 Math Statistics II	3
Math Elective (300/400 level)	3
Electives	9
<b>SEVENTH SEMESTER</b>	
MA 332 Numerical Analysis	3
Mathematics Electives (300/400 level)	3
Electives	9
<b>EIGHTH SEMESTER</b>	
Mathematics Electives (300/400 level)	3
Electives	13

Degree: Bachelor of Science  
 Major: Mathematics  
 Emphasis: Actuarial Science  
 Department: Mathematics  
 Chairperson: Prof. Wellington C. Engel  
 Program Director: Dr. Clarence W. Linehardt  
 Location: Home Economics Center  
 Phone: (717) 662-4700

## ART EDUCATION

Degree: BSE, Art Education

Upon successful completion of the B.S.E. program and the National Teacher Examination (NTE) for certification, this program leads to provisional certification to teach kindergarten through senior high school in the Commonwealth of Pennsylvania. Course work includes exposure to drawing, painting, printmaking, ceramics, jewelry, sculpture, fibers, crafts, and advertising arts. Professional artists often couple their interest in art with the employability that teach-

ing certification gives them. This program provides a solid background which enables students to continue on with graduate studies.

As a prerequisite for admission into the program, a personal art portfolio must be presented during an interview with art faculty.

## ART EDUCATION (K-12)

<b>FIRST SEMESTER</b>	SH
ARH 102 Survey of Art	3
ART 210 Drawing	3
ART 241 Color & Design	3
COM 101 Oral Communication	3
ENG 112 Composition I	3

## SECOND SEMESTER

ARE 288 Hist & Phil Art Ed	3
ART 201 Painting	3
ART 295 Crafts	3
Fine Arts Elective	3

## THIRD SEMESTER

ARE 290 Art Ed in Elem Tchg	3
ART 261 Waterbase Media	3
ART 271 Ceramics	3
ART History Elective	3

## FOURTH SEMESTER

ARH 225 Hist of Modern Art	3
ART 231 Printmaking	3
ART 281 Sculpture	3
Electives	3

## FIFTH SEMESTER

ART 251 Jewelry	3
ART 300 Visual Studies	3
ART 345 Fibers	3
ENG 313 Composition/Lit II	3

## SIXTH SEMESTER

ARE 393 Art in Sec School	3
ED 302 Instructional Tech	2
PSY 101 Intro to Psychology	3
ART Electives	6

## SEVENTH SEMESTER

ARE 394 Curric Dev in Art Ed	2
ED/PSY 305 Educational Psych	3

## EIGHTH SEMESTER

ARE 400 Student Teaching	12
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Degree: Bachelor of Science in Education  
 Major: Art Education  
 Department: Art  
 Chairperson: Dr. James Cecere  
 Location: Allen Hall  
 Phone: (717) 662-4502

## **PROGRAMS**

### **ART HISTORY**

Degree: BA, Art History

This program provides an excellent background in the historical and cultural origins of the visual arts, from cave painting to Picasso. Some courses include: Ancient and Medieval Art, Art of the Renaissance, History of Prints, Oriental Art, and the History of Black Art and American Indian Art, among others. Students may choose to do an internship normally offered in a museum near Mansfield.

Some careers: Primarily preparation is for graduate school, but with close advisement in selecting courses it can also provide preparation needed for work in galleries, museums, writing in the art field, and other related careers.

### **ART HISTORY**

<b>FIRST SEMESTER</b>	<b>SH</b>
ARH 102 Survey of Art	3
ENG 112 Composition I	3
ART History Electives	6
Fine Arts Elective	3

<b>SECOND SEMESTER</b>	<b>SH</b>
COM 101 Oral Communication	3
ART History Electives	3
Electives	6
General Ed Electives	3

<b>THIRD SEMESTER</b>	<b>SH</b>
Electives	6
Foreign Language	3
General Ed Electives	6

<b>FOURTH SEMESTER</b>	<b>SH</b>
Foreign Language	3
Studio Art Electives	3
Electives	3
General Ed Electives	6

<b>FIFTH SEMESTER</b>	<b>SH</b>
ART 300 Visual Studies	3
ENG 313 Composition/Lit II	3
ART History Electives	3
Studio Art Electives	3
General Ed Electives	3

<b>SIXTH SEMESTER</b>	<b>SH</b>
ART History Electives	6
Electives	3
General Ed Electives	6

<b>SEVENTH SEMESTER</b>	<b>SH</b>
ART 404 Special Problems	3
ART History Electives	3
Studio Art Electives	3
General Ed Electives	6

<b>EIGHTH SEMESTER</b>	<b>SH</b>
Electives	9
General Ed Electives	6

Degree: Bachelor of Arts

Major: Art History

Department: Art

Chairperson: Dr. James Cecere

Location: Allen Hall

Phone: (717) 662-4502

### **BIOLOGY**

Degree: BA, Biology

This general program provides a solid liberal arts background and a foundation of science courses in botany, chemistry, zoology, biology, physics, and mathematics. With close advisement students may concentrate in any one of several areas: botany, physiology, ecology, and cellular biology, among others. This program meets the minimum requirements for medical schools.

Some careers: Technicians in hospitals and research labs, lucrative sales positions with medical and pharmaceutical supply companies, and positions in the environmental and ecological areas of the job market. This program is excellent preparation for graduate school (medical, dental, pharmaceutical, chiropractic, and veterinary).

### **BIOLOGY**

<b>FIRST SEMESTER</b>	<b>SH</b>
BIO 210 Zoology	4
CHM 111 Genl Chemistry I	4
COM 101 Oral Communication	3
ENG 112 Composition I	3
MA 231 Calculus I	4

<b>SECOND SEMESTER</b>	<b>SH</b>
BIO 220 Botany	4
CHM 112 Genl Chemistry II	4
PHL 201 Intro to Philosophy	3
Fine Arts Elective	3
General Ed Electives	1

<b>THIRD SEMESTER</b>	<b>SH</b>
BIO 111 Intro Cell Biology	4
PHY 191 Physics I	4
General Ed Electives	8

<b>FOURTH SEMESTER</b>	<b>SH</b>
GEL 122 Historical Geology	3
PHY 192 Physics II	4
Biology Electives (300/400 level)	3
General Ed Electives	6

<b>FIFTH SEMESTER</b>	<b>SH</b>
BIO 310 Ecology	3
ENG 313 Composition/Lit II	3
Biology Electives (300/400 level)	6
Free Electives	4

<b>SIXTH SEMESTER</b>	<b>SH</b>
Biology Electives (300/400 level)	4

Free Electives	6	SIXTH SEMESTER	
General Ed Electives	6	PHY 192 Physics II	4
<b>SEVENTH SEMESTER</b>		BIO 340 OR 355	3
Biology Electives (300/400 level)	4	Biology Electives (300/400 level)	6
Free Electives	8	General Ed Electives	3
General Ed Electives	4	<b>SEVENTH SEMESTER</b>	
<b>EIGHTH SEMESTER</b>		Biology Electives (300/400 level)	6
BIO 404 Seminar	1	General Ed Electives	3
Free Electives	12	Electives	6
General Ed Electives	3	<b>EIGHTH SEMESTER</b>	

Degree: Bachelor of Arts

Major: Biology

Department: Biology

Chairperson: Dr. David C. Flesch

Program Director: Dr. Anthony Becker, Jr.

Location: Grant Science Center

Phone: (717) 662-4530

Degree: Bachelor of Science

Major: Biology

Department: Biology

Chairperson: Dr. David C. Flesch

Location: Grant Science Center

Phone: (717) 662-4530

## BIOLOGY

Degree: BS, Biology

## BIOLOGY

### FIRST SEMESTER SH

BIO 210 Zoology	4
CHM 111 Genl Chemistry I	4
ENG 112 Composition I	3
MA 231 Calculus I	4
General Ed Electives	3

### SECOND SEMESTER

BIO 220 Botany	4
CHM 112 Genl Chemistry II	4
MA 125 OR 232	3
General Ed Electives	6

### THIRD SEMESTER

BIO 111 Intro Cell Biology	4
CHM 301 Organic Chem I	4
Fine Arts Elective	3
General Ed Electives	6

### FOURTH SEMESTER

COM 101 Oral Communication	3
CHM 302 Organic Chem II	4
Electives	3
General Ed Electives	6

### FIFTH SEMESTER

BIO 310 Ecology	3
ENG 313 Composition/Lit II	3
PHY 191 Physics I	4
BIO 330 OR 332	3/4
General Ed Electives	3

## BIOLOGY

Degree: BSE, Biology

### BIOLOGY (7-12) SH

FIRST SEMESTER	SH
BIO 210 Zoology	4
CHM 111 Genl Chemistry I	4
ED 101 Intro to Education	1
ENG 112 Composition I	3
MA 231 Calculus I	4

### SECOND SEMESTER

BIO 220 Botany	4
CHM 112 Genl Chemistry II	4
MA 125 OR 232	3
Fine Arts Elective	3
General Ed Electives	3

### THIRD SEMESTER

BIO 111 Intro Cell Biology	4
CHM 301 Organic Chem I	4
COM 101 Oral Communication	3
ED 202 Sec Pre-Prof Exper	2
HST 201 OR 202	3

### FOURTH SEMESTER

CHM 302 Organic Chem II	4
ED 302 Instructional Tech	2
PSY 101 Intro to Psychology	3
BIO 330, 332, 340 OR 355	3
General Ed Electives	3

### FIFTH SEMESTER

BIO 310 OR 362	3
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## PROGRAMS

ED 310 Basic Reading Prac	3
ENG 313 Composition/Lit II	3
PHY 191 Physics I	4
PSY 321 Adolescent Psy	3
<b>SIXTH SEMESTER</b>	
ED 301 Evaluative Tech	2
ED/PSY 305 Educational Psy	3
ED 410 Hist & Current Issues	3
PHY 192 Physics II	4
BIO 330, 332, 340 OR 355	4
<b>SEVENTH SEMESTER</b>	
BIO 404 Seminar	1
ED 313 Tchg Sci Sec School	3
SPE 360 Exceptional Children	3
Biology Electives	1 OR 2
General Ed Electives	6
<b>EIGHTH SEMESTER</b>	
ED 400 Student Teaching	12

Degree: Bachelor of Science in Education  
 Major: Biology  
 Departments: Education  
     Biology  
 Chairpersons: Dr. Robert C. Putt  
     Dr. David C. Flesch  
 Locations: Retan Center  
     Grant Science Center  
 Phones: (717) 662-4372 (717) 662-4534

### BIOLOGY: FISHERIES

Degree: BS, Biology:Fisheries

MU is the only university in Pennsylvania to offer a fisheries degree and one of only 12 in the U.S. We have placed interns and graduates all over the U.S., establishing MU as a major center for undergraduate fisheries education. Graduates are in demand and salaries are very competitive. If you like working with science and nature, ask about this exciting program.

### BIO:FISHERIES

FIRST SEMESTER	
BIO 210 Zoology	4
CHM 111 Genl Chemistry I	4
ENG 112 Composition I	3
MA 231 Calculus I	4
SECOND SEMESTER	
BFC 213 Fish Culture I	3
CHM 112 Genl Chemistry II	4
MA 125 Intro to Stats	3
Fine Arts Elective	3
General Ed Elective	3

THIRD SEMESTER	
BFC 214 Fish Culture II	3
BIO 111 Intro Cell Biology	4
CHM 311 Quantitative Anly	4
General Ed Elective	4

FOURTH SEMESTER	
BIO 355 Microbiology	3
BIO 360 Ichthyology	3
CHM 332 Instrumental Anly	4
COM 101 Oral Communication	3
General Ed Elective	3

FIFTH SEMESTER	
BFC 315 Fish Pathology	3
BIO 310 Ecology	3
BIO 362 Limnology	3
ENG 313 Composition/Lit II	3
General Ed Elective	3

SIXTH SEMESTER	
BFC 318 Lit, Review & Reports	1
BIO 220 Botany	4
Free elective	5
General Ed Elective	7

SUMMER I	
BIO 461 Mgmt Small Impndmnts	3
BIO 462 Mgmt Large Impndmnts	3

SEVENTH SEMESTER	
BFC 317 Fish Management	3
BIO 460 Aquaculture Research	2
PHY 191 Physics I	4
General Ed Elective	5

EIGHTH SEMESTER	
BFC 404 Seminar	1
BIO 340 Genetics	3
PHY 192 Physics II	4
Free Elective	3

Summer II	
BIO 450 Internship	6

Degree: Bachelor of Science  
 Major: Bio:Fisheries  
 Department: Biology  
 Chairperson: Dr. David C. Flesch  
 Program Director: Dr. Richard Soderberg  
 Location: Grant Science Center  
 Phone: (717) 662-4530

### BROADCASTING

Degree: BS, Mass Communication

This program prepares students for careers in broadcast writing, production, and management. Core courses include: Intro to Mass Media, Radio Production and Management, Journalism, Media Design, and TV Program Design, among others. It also offers a vigorous major elective

and free elective curriculum. Students will associate with working professionals to gain practical experience in the university television and sound studios.

Some careers: Broadcast management, sales, production, writing, editing, talent, advertising, cable, music recording, and religious broadcasting.

## BROADCASTING

FIRST SEMESTER	SH
COM 101 Oral Communication	3
COM 201 Intro to Mass Media	3
ENG 112 Composition I	3
General Ed Electives	3-6
SECOND SEMESTER	
COM 301 TV Program Design I	3
JN 100 Journalism	3
General Ed Electives	8-11
THIRD SEMESTER	
COM 203 Voice & Articulation	3
COM 215 OR 310	3
Fine Arts Elective	3
General Ed Electives	2
Major/Related Electives	6
FOURTH SEMESTER	
COM 220 Am Broadcastg History	3
General Ed Electives	3-6
Major/Related Electives	6
FIFTH SEMESTER	
COM 304 TV Program Design II	3
ENG 313 Composition/Lit II	3
General Ed Electives	3
Major/Related Electives	6
SIXTH SEMESTER	
COM 340 Professional Issues	3
COM 400 Communication Theory	3
General Ed Electives	3-6
Major/Related Electives	6
SEVENTH SEMESTER	
COM 440 Communication Law	3
Internship OR Electives	6-15
EIGHTH SEMESTER	
Internship OR	6-15
General Ed Electives	12-18

Degree: Bachelor of Science  
 Major: Mass Communication  
 Emphasis: Broadcasting  
 Department: Communication & Theater  
 Chairperson: Mr. Michael D. Leiboff  
 Location: South Hall  
 Phone: (717) 662-4786

## CHEMISTRY

Degree: BS, Chemistry

This program is structured after the standards of the American Chemical Society and provides excellent preparation for advanced studies in medicine, dentistry, optometry, patent law and related professions. Emphasis is placed on organic and inorganic chemistry, mathematics, and general education. Limited cooperative educational opportunities are available with local industries.

Some careers: Food, pharmaceutical, oil, and chemical industries. B.S. Chemists are often involved in quality control, research, sales, monitoring employee environments, and agencies requiring analytical skills. Chemistry graduates are very competitive in the retail and wholesale professions. Over half of the MU graduates continue on to graduate school.

## CHEMISTRY

FIRST SEMESTER	SH
CHM 111 Genl Chemistry I	4
MA 231 Calculus I	4
COM 101 Oral Communication	3
ENG 112 Composition I	3
Elective	3

SECOND SEMESTER	SH
CHM 112 Genl Chemistry II	4
MA 232 Calculus II	4
Fine Arts Elective	3
Electives	6

THIRD SEMESTER	SH
CHM 301 Organic Chemistry I	4
CHM 311 Quantitative Analysis	4
MA 233 Calculus III	4
Electives	6

FOURTH SEMESTER	SH
CHM 302 Organic Chemistry II	4
PHY 188 Genl Physics I	4
Electives	9

FIFTH SEMESTER	SH
CHM 321 Physical Chem I	4 *
ENG 313 Composition/ Lit II	3
Chemistry Elective	3
PHY 211 Genl Physics II	4

SIXTH SEMESTER	SH
CHM 322 Physical Chem II	4 *
CHM 332 Instrumental Anly	4
CHM 410 Seminar	1
Chemistry Elective	3
Electives	6

SEVENTH SEMESTER	SH
CHM 420 Qual Organic Chem II	3 *
Electives	13

**PROGRAMS**

EIGHTH SEMESTER	
CHM 431 Adv Inorganic Chem	4 *
CHM 410 Seminar	1
Electives	10

\* Cycled every other year.

Degree: Bachelor of Science  
Major: Chemistry  
Department: Chemistry  
Chairperson: Dr. Arnold George  
Location: Grant Science Center  
Phone: (717) 662-4540

ED 302 Instructional Tech	2
ED 410 Hist & Current Issues	3
Chemistry Elective	3

SEVENTH SEMESTER	
CHM 410 Seminar	1
ED 310 Basic Reading Prac	3
PSY 321 Adolescent Psych	3
SPE 360 Exceptional Chldrn	3
Chemistry Elective	3

EIGHTH SEMESTER	
ED 400 Student Teaching	12

\* Cycled every other year.

**CHEMISTRY**

Degree: BSE, Chemistry

**CHEMISTRY (7-12)**

FIRST SEMESTER	
ED 101 Intro to Education	SH
CHM 111 Genl Chemistry I	1
COM 101 Oral Communication	4
MA 231 Calculus I	3
Fine Arts Elective	4
	3

SECOND SEMESTER	
BIO 111 Intro Cell Biology	4
CHM 112 Genl Chemistry II	4
ENG 112 Composition I	3
MA 125 or 232	3
Social Science Elective	3

THIRD SEMESTER	
CHM 301 Organic Chem I	4
ED 202 Sec Pre-Prof Exper	2
HST 201 OR 202	3
PSY 101 Intro to Psychology	3
Elective	3

FOURTH SEMESTER	
CHM 302 Organic Chem II	4
ED/PSY 305 Educational Psy	3
PHY 188 OR 191	4
Elective	3

FIFTH SEMESTER	
ED 313 Tchg Sci Sec Schl	3
ENG 313 Composition/Lit II	3
CHM 311 Quantitative Anly	4
CHM 321 Physical Chem I	4 *
PHY 211 OR 192	4

SIXTH SEMESTER	
CHM 332 Instrumental Anly	4
CHM 410 Seminar	1
ED 301 Evaluative Tech	2

Degree: Bachelor of Science in Education  
Major: Chemistry  
Departments: Education  
Chemistry  
Chairpersons: Dr. Robert C. Putt  
Dr. Arnold George  
Locations: Retan Center  
Grant Science Center  
Phones: (717) 662-4562 (717) 662-4540

**COMPUTER SCIENCE**

Degree: BS, Computer and Information Sciences  
This program provides a solid background in mathematics as well as computer science. Courses include programming in various languages, computer organization, operating systems, compilers and several mathematics courses. Some careers: Software and hardware development, programming, systems analysis, systems management, and consulting. Placement for our graduates has been 100% and the need for top graduates is still expanding.

**COMPUTER SCIENCE**

FIRST SEMESTER	
CIS 104 Computer Science I	SH
ENG 112 Composition I	3
Fine Arts Elective	3
General Ed Electives	6-9

SECOND SEMESTER	
CIS 204 Computer Science II	3
COM 101 Oral Communication	3
General Ed Electives	9-12

THIRD SEMESTER	
CIS 105 Bus Programming I	3
CIS 330 Computer Organization	3
MA 231 Calculus I	4
Math Elective (200 & above)	3
General Ed Electives	3-6

<b>FOURTH SEMESTER</b>	
CIS 205 Bus Programming II	3
MA 232 Calculus II	4
Math Elective (200 & above)	3
General Ed Electives	6-9
<b>FIFTH SEMESTER</b>	
CIS 301 Data Structures	3
MA 314 Appd Prob & Stats	3
Major/Related Elective	3
General Ed Electives *	6-9
<b>SIXTH SEMESTER</b>	
CIS 325 Operating Systems	3
ENG 313 Composition/Lit II	3
MA 260 Discrete Structures	3
Major/Related Elective	3
General Ed Electives *	4-6
<b>SEVENTH SEMESTER</b>	
CIS 310 Systems Analysis	3
CIS 340 OR 490	3
Major/Related Elective	3
Free Electives	6-9
<b>EIGHTH SEMESTER</b>	
CIS 335 Assembly Language Program	3
CIS 430 Program Translation	3
Major/Related Elective	3
Free Electives	9

\*A two course sequence with science lab is required.

Degree: Bachelor of Science
Major: Computer & Information Sciences
Emphasis: Computer Science
Department: Computer Science
Chairperson: Dr. Mary Robinson-Slabey
Location: Home Economics Center
Phone: (717) 662-4550

#### CRIMINAL JUSTICE ADMINISTRATION

Degree: BS, Criminal Justice Administration

Our program is one of Pennsylvania's oldest criminal justice program. It is also one of MU's largest programs. CJA provides a systems-based background with a core curriculum covering the criminal justice areas of law enforcement, courts, corrections and juvenile delinquency.

Depending on a particular career interest, courses may be selected from the following areas: police administration, investigation and interrogation, criminalistics, probation and parole, private security, organized crime, criminology, criminal law, and juvenile justice administration.

Most students complete a three month summer practicum within a criminal justice agency.

Some careers: Our CJA graduates are presently federally employed by U.S. Immigration, DEA, FBI, Secret

Service and serve as U.S. marshals. Numerous graduates work in state and municipal law enforcement agencies as well as correctional, juvenile justice, and private security settings. Top graduates often go on to graduate school and law studies.

#### CRIMINAL JUSTICE ADMINISTRATION

<b>FIRST SEMESTER</b>	SH
CJA 100 Intro to CJA	3
ENG 112 Composition I	3
Political Sci Elective	3
General Ed Electives	9

#### SECOND SEMESTER

CJA 201 Intro to Correction	3
COM 101 Oral Communication	3
Psychology Elective	3
Fine Arts Elective	3
General Ed Elective	3

#### THIRD SEMESTER

CJA 202 Intro Law Enforcement	3
Sociology Elective	3
General Ed Electives	13

#### FOURTH SEMESTER

CJA 395 Delinq & CJ Syst	3
CJA Elective	3
General Ed Electives	9

#### SEMESTER (MODEL II)

CJA Electives	6
Electives	6

#### FIFTH SEMESTER

CJA 324 Admin of Justice	3
CJA 326, 340, 359 or 453	3
ENG 313 Composition/Lit II	3
General Ed Electives	9

#### SIXTH SEMESTER

CJA Electives	8
General Ed Electives	10

#### SEMESTER (MODEL III)

CJA Electives	6
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An optional internship with a maximum of 12 semester hours is available at 100 selected sites in the N.E. United States.

Degree: Bachelor of Science
Major: Criminal Justice Administration
Department: Criminal Justice Administration
Chairperson: Dr. Floyd Liley
Location: Pinecrest Manor
Phone: (717) 662-4485

**PROGRAMS****EARTH AND SPACE SCIENCE**

Degree: BSE, Earth and Space Science

**EARTH AND SPACE SCIENCE (7-12)**

<b>FIRST SEMESTER</b>		SH
COM 101 Oral Communication	3	
ED 101 Intro to Education	1	
ENG 112 Composition I	3	
GEG 111 Physical Geog	3	
GEL 121 Physical Geol	3	
PSY 101 Intro to Psychology	3	

<b>SECOND SEMESTER</b>		
BIO 101 Man & BIO World	4	
ED/PSY 305 Educational Psy	3	
GEL 122 Historical Geology	3	
GEG 222 Environmental Issues	3	
Fine Arts Elective	3	

<b>THIRD SEMESTER</b>		
Ast 105 OR 106	3	
CHM 111 General Chem I	4	
ED 202 Sec Pre-Prof Exper	2	
HST 201 OR 202	3	
Earth & Space Sci Electives	3-6	
General Ed Electives	3	

<b>FOURTH SEMESTER</b>		
CHM 112 General Chem II	4	
GEL 102 Environmental Geol	3	
Earth & Space Sci Electives	3-6	
Mathematics Elective (Gen Ed)	3	

<b>FIFTH SEMESTER</b>		
ED 310 Basic Reading Pract	3	
ENG 313 Composition/Lit II	3	
PHY 151 Concept Physics I	4	
Earth & Space Sci Elective	3	
Mathematics Elective (Gen Ed)	3	

<b>SIXTH SEMESTER</b>		
ED 301 Evaluative Tech	2	
ED 302 Instructional Tech	2	
ED 313 Tchg Sci Sec Sch	3	
PHY 152 Concept Physics II	4	
Earth & Space Sci Elective	3	
General Ed Electives	3	

<b>SEVENTH SEMESTER</b>		
ED 410 Hist & Current Issues	3	
PSY 321 Adolescent Psychology	3	
SPE 360 Exceptional Children	3	
Earth & Space Sci Electives	3-6	
General Ed Electives	3	

<b>EIGHTH SEMESTER</b>		
ED 400 Student Teaching	12	

Degree: Bachelor of Science in Education

Major: Earth &amp; Space Science

Departments: Education

Geography &amp; Geology

Chairpersons: Dr. Robert C. Putt

Dr. Russell L. Dodson

Locations: Retan Center &amp; Belknap Hall

Phones: (717) 662-4562 (717) 662-4614

**ECONOMICS**

Degree: BA, Economics

Economists study the allocation of resources and the production and distribution of goods and services. They are interested in the problems of using resources efficiently, of achieving fairness in the distribution of goods, and of insuring the stability and growth of the Economic system.

This program provides a strong background in applying economic theory to problems facing business and government. Students are trained in using the tools economists use in undertaking economic analysis. The program is flexible enough to enable completion of a double major, or to develop concentrations of courses in a number of other areas of study.

Some careers: Employment outlook for graduates with a BA in economics is excellent and salaries are better than average. There are many openings in such areas as banking, economics, finance, insurance, marketing, real estate, etc.

**ECONOMICS**

<b>FIRST SEMESTER</b>		SH
COM 101 Oral Communication	3	
ECO 101 Prin of Macroecon	3	
ENG 112 Composition I	3	
General Ed Electives	6	

<b>SECOND SEMESTER</b>		
ECO 102 Prin of Microecon	3	
Fine Arts Elective	3	
General Ed Electives	9-12	

**THIRD/FOURTH/FIFTH/SIXTH/SEVENTH/EIGHTH SEMESTERS**

ECO 301 Interm Macroecon Thry	3
ECO 302 Interm Microecon Thry	3
ENG 313 Composition/Lit II	3
PSC 220 Public Policy	3
PSC 228 Political Economy	3
Free and/or General Ed Electives	
Major/Related Electives	18

Degree: Bachelor of Arts  
 Major: Economics  
 Department: Politics & Economics  
 Chairperson: Dr. Albert Dalmolen  
 Contact: Dr. Bruce Carpenter  
 Location: Pinecrest Manor  
 Phone: (717) 662-4761

**ECONOMICS**

Degree: BS, Economics

Economists study the allocation of resources and the production and distribution of goods and services. They are interested in the problems of using resources efficiently, of achieving fairness in the distribution of goods, and of insuring the stability and growth of the Economic system.

This program provides a strong background in applying economic theory to problems facing business and government. Students are trained in using the tools economists use in undertaking economic analysis. The program is flexible enough to enable completion of a double major, or to develop concentrations of courses in a number of other areas of study.

Some careers: Employment outlook for graduates with a BS in economics is excellent and salaries are better than average. There are many openings in such areas as banking, economics, finance, insurance, marketing, real estate, etc.

**ECONOMICS**

FIRST SEMESTER	SH
ACC 110 Prin of Accounting I	3
ECO 101 Prin of Macroecon	3
ENG 112 Composition I	3
MA 125 Intro to Stats	3
General Ed Electives	3

SECOND SEMESTER	SH
ACC 111 Prin of Accounting II	3
COM 101 Oral Communication	3
ECO 102 Prin of Microecon	3
MA 170 Fund Concepts of Calc	3
Fine Arts Elective	3

THIRD SEMESTER	SH
BUS 301 Intro to Finance	3
ECO 301 Interm Macroecon Thry	3
General Ed Electives	6-9

FOURTH SEMESTER	SH
BUS 230 Management Principles	3
ECO 302 Interm Microecon Thry	3
ENG 313 Composition/Lit II	3
General Ed Electives	6-9

FIFTH/SIXTH/SEVENTH/EIGHTH SEMESTERS	SH
BUS 330 Marketing	3
BUS 402 Corporate Finance	3
ECO 305 Econometrics	3
ECO 405 Mathematical Econ	3
PSC 220 Public Policy	3
PSC 228 Political Economy	3
Business Electives	6
Economics Electives	12
Free Electives	12-21
General Ed Electives	12-18

Degree: Bachelor of Science
Major: Economics
Department: Politics & Economics
Chairperson: Dr. Albert Dalmolen
Contact: Dr. Bruce Carpenter
Location: Pinecrest Manor
Phone: (717) 662-4761

**ELEMENTARY EDUCATION (K-6)**

Degree: BSE, Elementary Education

General courses include: Child Development, Children's Literature, Educational Psychology, Audio-Visual Communications, and History and Philosophy of Education, among others.

Some careers: Elementary education graduates receive an Instructional I certificate enabling them to teach kindergarten through 6th grade in Pennsylvania public schools, and in schools in states with informal reciprocity agreements. Other opportunities include: working with businesses that develop educational equipment, managing or teaching in daycare centers, textbook sales, and working with companies that market children's products.

**ELEMENTARY EDUCATION**

FIRST SEMESTER	SH
ED 101 Intro to Educ	1
ENG 112 Composition I	3
PSY 101 Intro to Psychology	3
Mathematics Elective (Gen Ed)	3
Science Elective (Gen Ed)	4

SECOND SEMESTER	SH
ARH 101 Intro to Art	3
COM 101 Oral Communication	3
General Ed Electives	3
Geography Elective (Gen Ed)	3
Humanities Elective	3

THIRD SEMESTER	SH
HST 201 OR 202	3
General Ed Electives	5
Humanities Elective	3
Mathematics Elective (Gen Ed)	3
Science Elective (Gen Ed)	4

FOURTH SEMESTER	SH
ED/PSY 305 Educational Psych	3
ELE 202 Pre-Professional Exper	2
Humanities Elective	3
Science Elective (Gen Ed)	4
Electives	4

FIFTH/SIXTH SEMESTER	SH
ED 302 Instructional Tech	2
ELE 350 Child Development	3
ENG 313 Composition/Lit II	3
MU 101 Intro to Music	3

**PROGRAMS**

SPE 360 Exceptional Chldrn	3	ENGLISH	
Electives	3		
<b>PROFESSIONAL SEMESTER</b>			
ELE 301 Observation/Participation	3	FIRST SEMESTER	SH
ELE 383 Teaching Reading	3	ENG 112 Composition I	3
ELE 384 Teaching Mathematics	3	ENG 115 Intro to Literature	3
ELE 386 Teaching Social Studies	3	Foreign Language	3
ELE 387 Teaching Science	3	General Ed Electives	6
Electives	3		
<b>SEVENTH SEMESTER</b>		<b>SECOND SEMESTER</b>	
ED 301 Evaluative Techniques	2	COM 101 Oral Communication	3
ED 401 Hist & Philos of Educ	3	English Elective	3
ED 402 Contemp Issues in Ed	2	Fine Arts Elective	3
ELE 403 Communication Skills	3	Foreign Language	3
ELE 425 Diagnostic & Remedial Rdg	3	General Ed Electives	3
Electives	4		
<b>EIGHTH SEMESTER</b>		<b>THIRD SEMESTER</b>	
ELE 400 Student Teaching	12	ENG 305-311; 350-382	6
Must choose an area of concentration from:		Foreign Language	3
Computers & Technology		General Ed Electives	9
Early Childhood Education			
Exceptional Children		<b>FOURTH SEMESTER</b>	
Foreign Languages		ENG 305-311; 350-382	3
Humanities		Foreign Language	3
Mathematics		General Ed Electives	9
Natural Science			
Social Science		<b>FIFTH SEMESTER</b>	
Degree: Bachelor of Science in Education		ENG 305-311; 350-382	3
Major: Elementary Education		ENG 313 Composition/Lit II	3
Chairperson: Dr. Robert C. Putt		ENG 352 Shakespeare	3
Location: Retan Center		Electives	6
Phone: (717) 662-4560			
<b>SIXTH SEMESTER</b>		<b>SEVENTH SEMESTER</b>	
ENG 333 Adv Composition		ENG 305-311; 350-382	6
ENG 305-311; 350-382		Electives	9
Electives			
<b>EIGHTH SEMESTER</b>		<b>EIGHTH SEMESTER</b>	
ENG 401 Seminar		ENG 401 Seminar	3
ENG 305-311; 350-382		ENG 305-311; 350-382	3
General Ed Elective		General Ed Elective	3
Electives		Electives	6

**ENGLISH**

Degree: BA, English

This is a Liberal Arts program that allows a student to study intensively American and British literature as well as African-American, Canadian, and other literatures. The department offers courses on literary periods or movements, individual writers, and literary theory. Literature by women is represented in the department's course offerings. The English department offers minors in Women's Studies, Creative Writing, Literature, and professional writing.

Some careers: The government is a major employer of writers. Other areas include publishing, editing, public relations, research, technical writing, and copyrighting. This program is excellent preparation for graduate study in English. Many pre-med and pre-law students earn their first degree in English.

Degree: Bachelor of Arts

Major: English

Department: English

Chairperson: Mr. Walter Sanders

Location: Belknap Hall

Phone: (717) 662-4592

**ENGLISH**

Degree: BSE, English

This program prepares a student to teach English in the secondary schools. The English component of the program allows a student to study intensively American and

British literature as well as African-American, Canadian, and other literatures. The department offers courses on literary periods or movements as well as individual writers and literary theory. Literature by women is represented in the department's course offerings. The history of the English language, study of contemporary theories of grammar and the theory and practice of writing are integral parts of the program.

#### ENGLISH (7-12)

FIRST SEMESTER		SH
ENG 112 Composition I	3	
ENG 115 Intro to Literature	3	
ENG 226 Hist English Language	3	
PSY 101 Intro to Psychology	3	
Foreign Language	3	
General Ed Electives	3	
SECOND SEMESTER		
COM 101 Oral Communication	3	
ED 101 Intro to Education	1	
ENG 225 English Grammar	3	
English Elective	3	
Foreign Language	3	
General Ed Electives	4	
THIRD SEMESTER		
ED 202 Sec Pre-Prof Exper	2	
ENG 305-311; 350-401	6	
HST 201 OR 202	3	
Fine Arts Elective	3	
Foreign Language	3	
FOURTH SEMESTER		
ED/PSY 305 Educational Psy	3	
ENG 305-311; 350-401	6	
Foreign Language	3	
General Ed Electives	3	
FIFTH SEMESTER		
ED 312 Tchg ENG Lang Arts	3	
ENG 313 Composition/Lit II	3	
ENG 352 Shakespeare	3	
PSY 321 Adolescent Psych	3	
General Ed Electives	3	
SIXTH SEMESTER		
COM 200 Oral Interpretation	3	
ED 301 Evaluative Tech	2	
ED 310 Basic Reading Pract	3	
ENG 305-311; 350-401	3	
ENG 324 Comp Theory & Pract	3	
ENG 333 Advanced Composition	3	
SEVENTH SEMESTER		
ED 400 Student Teaching	12	

#### EIGHTH SEMESTER

COM 400 Communication Theory	3
ED 302 Instructional Tech	2
ED 410 Hist & Current Issues	3
ENG 401 Seminar	3
SPE 360 Exceptional Chldrn	3

Degree: Bachelor of Science in Education

Major: English

Departments: Education  
English

Chairpersons: Dr. Robert C. Putt  
Mr. Walter G. Sanders

Locations: Retan Center & Belknap Hall

Phones: (717) 662-4562 (717) 662-4592

#### ENVIRONMENTAL SCIENCE

Degree: BS, Biology

This program is for students interested in environmental issues. Students receive a general overview of the field as well as practical skills. The program is designed to train scientists to look at environmental problems in an interdisciplinary way.

Students will get solid basics in the environmental field as well as related courses in the arts and sciences.

#### ENVIRONMENTAL SCIENCE

##### BIOLOGY

FIRST SEMESTER	SH
BIO 210 Zoology	4
CHM 111 Genl Chemistry I	4
ENG 112 Composition I	3
GEG 222 Environmntl Land Use	3
MA 231 Calculus I	4

#### SECOND SEMESTER

BIO 220 Botany	4
CHM 112 Genl Chemistry II	4
MA 125 OR 232	3
General Ed Elective	5

#### THIRD SEMESTER

BIO 111 Intro Cell Biology	4
BIO 310 Ecology	3
CHM 301 Organic Chem I	4
GEG 340 MAP and Air Photo Interpretation	4
General Ed Elective	2

#### FOURTH SEMESTER

CHM 302 Organic Chem II	4
COM 101 Oral Communication	3
Biology Elective (300/400 level)	3
Fine Arts Elective	3
General Ed Elective	3

#### FIFTH SEMESTER

BIO 362 Limnology	3
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## PROGRAMS

ENG 313 Composition/Lit II	3	THIRD SEMESTER
GEG 312 Weather/Climate	3	CHM 101 OR 111
PHY 191 Physics I	4	GEG 222 Environmental Issues
General Ed Elective	3	RPL 102 Intro Regional Plng
<b>SIXTH SEMESTER</b>		General Ed Electives
BIO 340 OR 355	3	
BIO 465 Seminar Envirn Sci	1	<b>FOURTH SEMESTER</b>
PHY 192 Physics II	4	CHM 102 OR 112
General Ed Electives	6	Fine Arts Elective
Electives	3	Geography Elective
<b>SEVENTH SEMESTER</b>		Professional Elective
BIO 330 OR 332	3/4	General Ed Electives
CHM 311 Quantitative Anly	4	
Biology Elective (300/400 level)	3	<b>FIFTH SEMESTER</b>
General Ed Elective	6	BIO 310 Ecology
<b>EIGHTH SEMESTER</b>		ENG 313 Composition/Lit II
BIO 404 Seminar	1	GEG 364 Techniques of
CHM 332 Instrumntl Anly	4	Geographic Measurement
Biology Elective (300/400 level)	7	RPL 342 Land-Use Policy
General Ed Electives	6	General Ed Electives

Degree: Bachelor of Science  
 Major: Biology  
 Emphasis: Environmental Science  
 Department: Biology  
 Chairperson: Dr. David C. Flesch  
 Program Director: Dr. Kenneth Meyer  
 Location: Grant Science Center  
 Phone: (717) 662-4530

## ENVIRONMENTAL SCIENCE

Degree: BS, Geography

The program in Environmental Science is for those interested in environmental issues. Both a general overview of the field as well as practical skills are taught. Specifically, the program is designed to expose students to a variety of disciplines, provide them with a valuable and rigorous learning experience, and increase their marketability.

Some careers: With diligent study, students will be prepared for graduate school or entry-level positions in government and industry.

## ENVIRONMENTAL SCIENCE GEOGRAPHY

FIRST SEMESTER	SH
COM 101 Oral Communication	3
ENG 112 Composition I	3
GEG 101 World Regional Geog	3
General Ed Electives	6
SECOND SEMESTER	
BIO 101 Man & BIO World	4
GEG 102 Human Geography	3
GEG 111 Physical Geography	3
General Ed Electives	6

THIRD SEMESTER	
CHM 101 OR 111	4
GEG 222 Environmental Issues	3
RPL 102 Intro Regional Plng	3
General Ed Electives	6

FOURTH SEMESTER	
CHM 102 OR 112	4
Fine Arts Elective	3
Geography Elective	3
Professional Elective	3
General Ed Electives	3

FIFTH SEMESTER	
BIO 310 Ecology	3
ENG 313 Composition/Lit II	3
GEG 364 Techniques of	
Geographic Measurement	3
RPL 342 Land-Use Policy	3
General Ed Electives	6

SIXTH SEMESTER	
GEG 300 Geographic Research	3
GEG 340 Map&Air Photo Interpretation	3
Professional Elective	3
General Ed Electives	6

SEVENTH SEMESTER	
BIO 362 Limnology	3
Geography Elective	3
Professional Elective	3
General Ed Electives	3

EIGHTH SEMESTER	
GEG 312 Weather & Climate	3
GEG 465 Seminar in Env Sci	1
Geography Elective	3
Professional Elective	3
General Ed Electives	3

Degree: Bachelor of Science  
 Major: Geography  
 Emphasis: Environmental Science  
 Department: Geography & Geology  
 Chairperson: Dr. Russell Dodson  
 Location: Belknap Hall  
 Phone: (717) 662-4614

## EXCEPTIONAL PERSONS

Degree: BS, Exceptional Persons

If you want to work with exceptional persons in settings that don't require teaching certification, this program may be for you. Courses include: Mentally/Physically Disabled, Practical Arts for Exceptional Individuals, Behavior Modification, Communication Disorders, Residential Facilities for the Disabled, and Gerontological Psychology, among others.

Some careers: Civil Service jobs, qualified as a mental health/mental retardation worker, group home specialist,

recreational specialist, direct care provider, child advocate, and many private facilities occupations. This is a demanding and growing career area. Placement for MU graduates has been 100%.

#### EXCEPTIONAL PERSONS

<b>FIRST SEMESTER</b>		<b>SH</b>
COM 101 Oral Communication	3	
PSY 101 Intro to Psychology	3	
SPE 101 Exceptional Persons	3	
Fine Arts Elective	3	
General Ed Electives	3	
<b>SECOND SEMESTER</b>		
ENG 112 Composition I	3	
SPE 201 Mntl/Phys Disabled	3	
General Ed Electives	10	
<b>THIRD SEMESTER</b>		
SPE 304 Prac Art for Excpt Pers	3	
General Ed Electives	13	
<b>FOURTH SEMESTER</b>		
SPE 310 Communication Disorders	3	
Major/Related Electives (300/400 level)	3	
General Ed Electives	8	
Electives	3	
<b>FIFTH SEMESTER</b>		
HPE 340 First Aid & CPR	3	
PSY 322 Gerontological Psy	3	
SPE 340 Chld Need Emtnl Support	3	
SPE 345 Behavior Management	3	
Electives	6	
<b>SIXTH SEMESTER</b>		
ENG 313 Composition/Lit II	3	
PSY 311 Intro Small Group Proc	3	
SPE 355 Selected Topics	3	
SPE 375 Residential Facility Disabled	3	
Major/Related Electives (300/400 level)	3	
<b>SEVENTH SEMESTER</b>		
SPE 476 Normaliz & Community Relatns	3	
SWK 351 SWK Mthds: Organizations	3	
Major/Related Electives (300/400 level)	6	
Electives	6	
<b>EIGHTH SEMESTER</b>		
SPE 450 Internship	12	

Degree: Bachelor of Science  
 Major: Exceptional Persons  
 Department: Special Education  
 Chairperson: Dr. Ronald Straub  
 Location: Retan Center  
 Phone: (717) 662-4796

#### FASHION MERCHANDISING

Degree: BS, Fashion Merchandising

This program provides a blend of product knowledge, business practices, consumer behavior and includes a tour of the fashion industry in New York City and a six-week work experience in a retail establishment. Graduates are trained in business, textile science, clothing production, fashion theory, and apparel design analysis.

Some careers: Most graduates are hired by Retailers for positions such as department manager, assistant buyer, buyer, and merchandising. Apparel manufacturers employ graduates in show room sales.

#### FASHION MERCHANDISING

<b>FIRST SEMESTER</b>		<b>SH</b>
COM 101 Oral Communication	3	
SOC 101 Intro to Sociology	3	
Fine Arts Elective	3	
General Ed Electives	6	

#### SECOND SEMESTER

MA 125 Intro to Stats	3
ENG 112 Composition I	3
General Ed Electives	9

#### THIRD SEMESTER

CHM 101 Intro to Chemistry	4
BUS 230 Management Principles	3
BUS 330 Marketing	3
General Ed Electives	6

#### FOURTH SEMESTER

CHM 102 Organic & Biochem	4
CIS 103 Intro Microcomputers	3
FM 201 Apparel Design Anly	3
Electives	6

#### FIFTH OR SEVENTH SEMESTER

ACC 110 Prin of Accounting I	3
BUS 332 Promotion in Mktg	3
BUS 410 Business Law I	3
BUS 451 Behav Approach to Mgmt	3
ECO 102 Prin of Microecon	3
ENG 313 Composition/Lit II	3

#### FIFTH OR SEVENTH SEMESTER

(FALL semester only)  
 Professional Seminar - This semester cannot be changed.

#### 8 WEEKS:

FM 304 Cloth Product, Distribution&Consumption	3
FM 305 Struct & Properties of Fibers	2
FM 407 Professional Seminar	2
FM 408 Presentation Techniques	2

#### 8 WEEKS:

FM 409 Seminar & Field Exper (New York City Fashion Tour)	4
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**PROGRAMS****SIXTH SEMESTER**

ACC 111 Prin of Accounting II	3
BUS 370 Salesmanship	3
FM 202 Fashion Merchandising	3
Business Elective (300/400 level)	3
General Ed Electives	3

**EIGHTH SEMESTER**

FM 203 Funds Clothing Construction	3
FM 306 Fabrics & Finishes	3
Business Electives (300/400 level)	6
General Ed Electives	6

Degree: Bachelor of Science

Major: Fashion Merchandising

Department: Business Administration

Chairperson: Dr. Gopalan Kutty

Location: Home Economics Center

Phone: (717) 662-4627

**SECOND SEMESTER**

FR 202 Interm French II	3
FR 205 Phonetics & Pronun	1
General Ed Electives	9
Electives	3

**THIRD SEMESTER**

Free Electives	6-7
General Ed Electives	9

**FOURTH SEMESTER**

FR 300 Conversatn & Civ	3
General Ed Electives	12-13

**FIFTH SEMESTER**

ENG 313 Composition/Lit II	3
FR 320 Adv Structure	3
French Electives	3
General Ed OR Free Electives	6-7

**SIXTH SEMESTER**

FR 330 Svy of Lit I	3
French Electives	3
General Ed OR Free Electives	9-12

**SEVENTH SEMESTER**

French Electives	6
General Ed OR Free Electives	9-12

**EIGHTH SEMESTER**

FR 331 Svy of Lit II	3
French Electives	3
General Ed OR Free Electives	9-12

Degree: Bachelor of Arts

Major: French

Department: Foreign Language

Chairperson: Mr. Bernard Clark

Location: Belknap Hall

Phone: (717) 662-4603

**FOREIGN LANGUAGE**

Degree: BA, (SEE - French , German, and Spanish)

The foreign languages are more important than ever in the professional world. Written and oral communications in many parts of the U.S. are now bilingual with the increasing influence of Hispanic culture. However, French is still spoken in many parts of the world and German has wide application, especially in Europe. As business, industry, and communications become more international, knowledge of a second language is very important in many careers. For this reason, a BA in one of the languages makes an excellent dual major with other BA programs. Foreign language also makes an excellent minor.

Our language programs include (in the area of specialization), conversation, culture and civilization, literature, history, phonetics, and general arts and sciences courses. Course study abroad in foreign languages are encouraged and can be arranged for students who wish to pursue this option. Russian may be embarked upon in the Mansfield - Volgograd exchange program.

Some careers: A variety of governmental agencies and many areas of the travel and tourism industry seek employees with bilingual expertise. Teaching in higher education is also an option for majors who pursue graduate studies in this field.

**FRENCH**

Degree: BA, French

**FRENCH**

FIRST SEMESTER	SH
COM 101 Oral Communication	3
ENG 112 Composition I	3
FR 201 Interm French I	3
Fine Arts Elective	3
General Ed Electives	3

**FIRST SEMESTER**

COM 101 Oral Communication	3
ED 101 Intro to Education	1
ENG 112 Composition I	3
FR 201 Interm French I	3
HST 201 OR 202	3

**SECOND SEMESTER**

ED 202 Sec Pre-Prof Exper	2
FR 202 Interm French II	3
FR 205 Phonetics & Pronun	1

Fine Arts Elective	3
General Ed Elective	3
<b>THIRD SEMESTER</b>	
ED 302 Instructional Tech	2
FR 300 Conversatn FR & Civ	3
PSY 101 Intro to Psychology	3
French Elective	3
General Ed Electives	6
<b>FOURTH SEMESTER</b>	
ED/PSY 305 Educational Psych	3
FR 330 Svy French Lit I	3
General Ed Electives	9
<b>FIFTH SEMESTER</b>	
ED 301 Evaluative Tech	2
ENG 313 Composition/Lit II	3
FR 320 Adv French Struct	3
PSY 321 Adolescent Psych	3
French Elective	3
General Ed Electives	3
<b>SIXTH SEMESTER</b>	
ED 310 Bas Reading Pract	3
ED 410 Hist & Current Issues	3
FR 331 Svy French Lit II	3
French Elective	3
General Ed Electives	3-6
<b>SEVENTH SEMESTER</b>	
ED 300 Sec School Methods	3
SPE 360 Exceptional Children	3
French Electives	6
General Ed Electives	6
<b>EIGHTH SEMESTER</b>	
ED 400 Student Teaching	12

Degree: Bachelor of Science in Education  
 Major: French  
 Departments: Education  
     Foreign Languages  
 Chairpersons: Dr. Robert C. Putt  
     Mr. Bernard K. Clark  
 Locations: Retan Center & Belknap Hall  
 Phones: (717) 662-4562 (717) 662-4603

ing, finance, management, and organization structures. General Business is one of our most popular programs. Marketing prepares you for entry-level careers in marketing-sales, promotion, and marketing research, among others.

Some careers: Since nearly everything in the world is related to business, career opportunities are limited only by the imagination.

#### GENERAL BUSINESS

<b>FIRST SEMESTER</b>	
ACC 110 Prin of Accounting I	3
COM 101 Oral Communication	3
ECO 101 Prin of Macroecon	3
ENG 112 Composition I	3
Electives	3
<b>SECOND SEMESTER</b>	
ACC 111 Prin of Accounting II	3
BUS 230 Management Principles	3
ECO 102 Prin of Microecon	3
SOC 101 Intro to Sociology	3
Electives	3
<b>THIRD SEMESTER</b>	
ACC 315 OR 350	3
CIS 203 Software for Bus Appl	3
MA 129 Finite Mathematics	3
MA 170 OR 231	3
Fine Arts Elective	3
Electives	3
<b>FOURTH SEMESTER</b>	
BUS 301 Intro to Finance	3
BUS 302 Managerial Decision Making	3
BUS 330 Marketing	3
MA 125 Intro to Stats	3
Electives	4

<b>FIFTH SEMESTER</b>	
BUS 349 Quantitative Bus Anly	3
BUS 451 Behavior Approach to Mgmt	3
ENG 313 Composition/Lit II	3
Major/Related Electives (300/400 level)	6

<b>SIXTH SEMESTER</b>	
BUS 350 Production Management	3
BUS 410 Business Law I	3
Major/Related Electives (300/400 level)	3
Electives	6

<b>SEVENTH SEMESTER</b>	
BUS 402 Corporate Finance	3
Major/Related Electives (300/400 level)	3
Electives	12
<b>EIGHTH SEMESTER</b>	
BUS 441 Financial Statement Anly	3
BUS 490 Business Policy	3
Electives	9

#### GENERAL BUSINESS

Degree: BS, Business Administration

Students entering the business program are advised to discuss their goals and plans with their academic advisor who will help choose courses that will prepare them to be competitive in their specific area of business. Business Administration offers three options. The accounting option prepares you, through a sequence of accounting courses, to sit for the CPA and CMA exam. The general business option provides a broad exposure to such areas as market-

Degree: Bachelor of Science  
 Major: Business Administration  
 Emphasis: General Business  
 Department: Business Administration  
 Chairperson: Dr. Gopalan Kutty  
 Location: Home Economics Center  
 Phone: (717) 662-4516

**GENERAL STUDIES**

Degree: BA, General Studies

Growing in popularity, this program is for creative, ambitious students who want to design their own major. It is an alternative to other more rigid program structures. This freedom opens some exciting opportunities in mixing degree concentrations not otherwise offered by the university. For example, depending on particular interests, you might combine art and computer science, business and public relations, art and psychology or geology and English. The combinations are nearly unlimited. With close advisement, courses may be selected to create a program suited to individual interests and needs.

Some careers: New careers and jobs are being created everyday. General Studies provides the opportunity to package yourself uniquely for existing or probable jobs.

Degree: Bachelor of Arts  
 Major: General Studies  
 Department: Philosophy  
 Chairperson: Dr. Stephen H. Bickham  
 Location: South Hall  
 Phone: (717) 662-4742

**GEOGRAPHY**

Degree: BA, Geography

Geography is a modern academic field concerned with interpreting the physical and cultural patterns and processes that shape our world. Geographers are concerned with conserving and managing our natural resources, the ecological relationships of people and their surroundings, environmental disruptions, and regional-economic development. This program allows some freedom, with advisement, to tailor a program to individual needs and interests.

Some careers: The government is a large employer of geographers, and both government and industry need cartographers. A number of our graduates go on to graduate school.

**GEOGRAPHY**

FIRST SEMESTER		SH
COM 101 Oral Communication	3	
ENG 112 Composition I	3	
GEG 101 World Regional Geog	3	
General Ed Electives	6	
SECOND SEMESTER		
GEG 102 Human Geography	3	
GEG 111 Physical Geography	3	
General Ed Electives	6	

**THIRD SEMESTER**

GEG 222 Environmental Issues	3
Geography Electives (300/400 level)	3
General Ed Electives	6

**FOURTH SEMESTER**

Geography Electives (300/400 level)	3
General Ed Electives	6

**FIFTH SEMESTER**

GEG 300 Geographic Research	3
Geography Electives (300/400 level)	3
General Ed Electives	6

**SIXTH SEMESTER**

GEG 320 Cartography	4
Geography Electives (300/400 level)	3
General Ed Electives	6

**SEVENTH SEMESTER**

GEG 360 Economic Geography	3
General Ed Electives	3

**EIGHTH SEMESTER**

GEG 364 Techniques of Geographic Measurement	3
General Ed Electives	3
Electives	3

Degree: Bachelor of Arts  
 Major: Geography  
 Department: Geography & Geology  
 Chairperson: Dr. Russell Dodson  
 Location: Belknap Hall  
 Phone: (717) 662-4614

**GEOGRAPHY**

Degree: BS, Geography

Geography is a modern academic field concerned with interpreting the physical and cultural patterns and processes that shape our world. Geographers are concerned with conserving and managing our natural resources, the ecological relationships of people and their surroundings, environmental disruptions, and regional-economic development. This program allows some freedom, with advisement, to tailor a program to individual needs and interests.

Some careers: The government is a large employer of geographers, and both government and industry need cartographers. A number of our graduates go on to graduate school.

**GEOGRAPHY**

FIRST SEMESTER		SH
COM 101 Oral Communication	3	
ENG 112 Composition I	3	
GEG 101 World Regional Geog	3	
General Ed Electives	6	
SECOND SEMESTER		
GEG 102 Human Geography	3	
GEG 111 Physical Geography	3	
General Ed Electives	6	

<b>SECOND SEMESTER</b>		<b>THIRD SEMESTER</b>	
GEG 102 Human Geography	3	Free Electives	6-7
GEG 111 Physical Geog	3	General Ed Electives	9
General Ed Electives	6		
<b>THIRD SEMESTER</b>		<b>FOURTH SEMESTER</b>	
GEG 222 Environmental Issues	3	GER 300 Conversatn & Civ	3
Geography Electives (300/400 level)	3	General Ed Electives	12-13
General Ed Electives	6		
<b>FOURTH SEMESTER</b>		<b>FIFTH SEMESTER</b>	
Geography Electives (300/400 level)	3	ENG 313 Composition/Lit II	3
General Ed Electives	6	GER 320 Adv Structure	3
		German Electives	3
		General Ed OR Free Electives	6-7
<b>FIFTH SEMESTER</b>		<b>SIXTH SEMESTER</b>	
GEG 300 Geographic Research	3	GER 330 Svy of Lit I	3
Geography Electives (300/400 level)	3	German Electives	3
General Ed Electives	6	General Ed OR Free Electives	9-12
<b>SIXTH SEMESTER</b>		<b>SEVENTH SEMESTER</b>	
GEG 320 Cartography	4	German Electives	6
Geography Electives (300/400 level)	3	General Ed OR Free Electives	9-12
General Ed Electives	6		
<b>SEVENTH SEMESTER</b>		<b>EIGHTH SEMESTER</b>	
GEG 360 Economic Geography	3	GER 331 Svy of Lit II	3
Geography Electives (300/400 level)	3	German Electives	3
		General Ed OR Free Electives	9-12

**EIGHTH SEMESTER**

GEG 364 Techniques of Geographic Measurement	3
Free Electives	3
General Ed Electives	3

Degree: Bachelor of Science  
 Major: Geography  
 Department: Geography & Geology  
 Chairperson: Dr. Russell Dodson  
 Location: Belknap Hall  
 Phone: (717) 662-4614

Degree: Bachelor of Arts  
 Major: German  
 Department: Foreign Language  
 Chairperson: Mr. Bernard Clark  
 Location: Belknap Hall  
 Phone: (717) 662-4603

**GERMAN**

Degree: BA, German

**GERMAN**

<b>FIRST SEMESTER</b>		SH
COM 101 Oral Communication	3	
ENG 112 Composition I	3	
GER 201 Interm German I	3	
Fine Arts Elective	3	
General Ed Electives	3	

**SECOND SEMESTER**

GER 202 Interm German II	3
GER 205 Phonetics & Pronun	1
General Ed Electives	9
Electives	3

**FIRST SEMESTER**

COM 101 Oral Communication	3
ED 101 Intro to Education	1
ENG 112 Composition I	3
GER 201 Interm German I	3
HST 201 OR 202	3

**SECOND SEMESTER**

ED 202 Sec Pre-Prof Exper	2
GER 202 Interm German II	3
GER 205 Phonetics & Pronun	1
Fine Arts Elective	3
General Ed Electives	3

**THIRD SEMESTER**

ED 302 Instructional Tech	2
ENG 210 Lit Western World I	3
GER 320 Adv German Structure	3

## PROGRAMS

GER 335, 336 OR 360 PSY 101 Intro to Psychology	3 3	as editing publications, management, foreign service, and museums.
<b>FOURTH SEMESTER</b>		<b>HISTORY</b>
ED/PSY 305 Educational Psych GER 330 Svy German Lit I General Ed Elective	3 3 9	FIRST SEMESTER COM 101 Oral Communication HST 101 OR 102 Fine Arts Elective General Ed Electives
<b>FIFTH SEMESTER</b>		SH 3 3 3 6
ED 301 Evaluative Tech ENG 313 Composition/Lit II GER 300 Conversatnl German PSY 321 Adolescent Psych General Ed Electives German Elective	2 3 3 3 4 3	SECOND SEMESTER ENG 112 Composition I Electives General Ed Electives SOC Sci Elect (Gen Ed)
<b>SIXTH SEMESTER</b>		3 3 3 6 6
ED 310 Basic Reading Pract ED 410 Hist & Current Issues GER 331 Svy German Lit II General Ed Electives German Elective	3 3 3 3-6 3	THIRD SEMESTER HST 201 OR 202 General Ed Electives SOC Sci Elect (Gen Ed)
<b>SEVENTH SEMESTER</b>		6 6 6
ED 300 Sec School Methods SPE 360 Exceptional Children General Ed Electives German Electives	3 3 6 6	SOC Sci Elect (Gen Ed)
<b>EIGHTH SEMESTER</b>		<b>FIFTH SEMESTER</b>
ED 400 Student Teaching	12	HST 300 Historiography Third World History Elective Electives

Degree: Bachelor of Science in Education  
 Major: German  
 Departments: Education  
     Foreign Language  
 Chairpersons: Dr. Robert C. Putt  
     Mr. Bernard K. Clark  
 Locations: Retan Center & Belknap Hall  
 Phones: (717) 662-4562 (717) 662-4603

## HISTORY

Degree: BA, History

The past is a living, dynamic subject and very much a part of today. This program in the humanities provides a solid background in the methods and concepts of historical investigation and introduces students to the various schools of historical interpretation. It includes courses in American, European, and Third World history, as well as, a wide variety of general arts and sciences courses. The research and writing skills developed in this program open opportunities in many areas.

Some careers: History is excellent preparation for law school. Combined with the appropriate courses, it provides a good background for journalism. Producers of television shows, documentaries, and movies, with settings in the past, all have research staffs to insure historically accurate productions. History graduates work in such diverse careers

FIRST SEMESTER COM 101 Oral Communication HST 101 OR 102 Fine Arts Elective General Ed Electives	SH 3 3 3 6
SECOND SEMESTER ENG 112 Composition I Electives General Ed Electives SOC Sci Elect (Gen Ed)	3 3 6 3
THIRD SEMESTER HST 201 OR 202 General Ed Electives SOC Sci Elect (Gen Ed)	3 6 6
FOURTH SEMESTER Electives General Ed Electives SOC Sci Elect (Gen Ed)	6 6 3
<b>FIFTH SEMESTER</b>	
HST 300 Historiography Third World History Elective Electives	3 3 9
<b>SIXTH SEMESTER</b>	
ENG 313 Composition/Lit II History Elective (300/400 level) Third World Anth, Geg, HST or PSc General Ed Electives	3 6 3 6
<b>SEVENTH SEMESTER</b>	
History Electives (300/400 level) Electives	3 12
<b>EIGHTH SEMESTER</b>	
HST 496 Seminar History Electives (300/400 level) Electives	3 6 6

Degree: Bachelor of Arts  
 Major: History  
 Department: History  
 Chairperson: Dr. Robert W. Unger  
 Location: Pinecrest Manor  
 Phone: (717) 662-4662

## HUMAN RESOURCE MANAGEMENT

Degree: BS, Psychology

Emphasis is on the conceptual and technical skills required to perform effectively in the dynamic field of human

resource management. Psychology and business courses are required. Core courses emphasize knowledge of interviewing, regulatory issues, personnel selection, training and management development, performance evaluation, compensation and benefits, labor relations, employee motivation and satisfaction, leadership, group processes, job design, total quality management, and organizational development.

Some careers: Graduates of the program currently occupy human resource management positions in manufacturing, service, and health care settings.

#### HUMAN RESOURCE MANAGEMENT

<b>FIRST SEMESTER</b>		<b>SH</b>
COM 101 Oral Communication	3	
ENG 112 Composition I	3	
PSY 101 Intro to Psychology	3	
PSY 151 Intro Appl of Psych	1	
General Ed Electives	5	
<b>SECOND SEMESTER</b>		
BUS 130 Intro Bus & Mgmt	3	
ECO 102 Prin of Microecon	3	
MA 125 Intro to Stats	3	
SOC 101 Intro to Sociology	3	
General Ed Electives	3	
<b>THIRD SEMESTER</b>		
ACC 110 Prin of Accounting I	3	
PSY 201 Tests & Measurements	3	
Fine Arts Elective	3	
General Ed Electives	6-9	
<b>FOURTH SEMESTER</b>		
PSY 202 OR 250		
PSY 290 Life Span Devel	3	
PSY 291 Abnormal Psych	3	
General Ed Electives	6-9	
<b>FIFTH SEMESTER</b>		
ENG 313 Composition/Lit II	3	
PSY 310 OR 430	3	
PSY 410 OR SOC 301	3	
Electives	6-9	
<b>SIXTH SEMESTER</b>		
PSY 311 Intro Small Group Proc	3	
PSY 313 Psych of Interviewing	3	
PSY 332 Psych of Stress Mgmt	2	
Electives	6-9	
<b>SEVENTH SEMESTER</b>		
PSY 495 OR 497	3-15	
Electives	6-12	
<b>EIGHTH SEMESTER</b>		
PSY 462 Behavior Modification	3	
PSY 491 Human Resource Mgmt	3	
Electives	9-12	

Degree: Bachelor of Science
Major: Psychology
Emphasis: Human Resources Management
Department: Psychology
Chairperson: Dr. Peter Keller
Location: South Hall
Phone: (717) 662-4771

#### INFORMATION SYSTEMS

Degree: BS, Computer and Information Sciences

The information systems emphasis is business oriented. In addition to core computer science courses, studies include accounting, business organization, systems analysis, and management information systems. This program is designed to help deal with the applications of information services in a business environment. It is geared to the needs of government organizations, business, and industry. Students would do well to take a foreign language if they are interested in working abroad or in one of the dozens of multilingual corporations in this country.

Some careers: The job market is excellent and placement is high. National and multinational corporations are recruiting top people.

#### INFORMATION SYSTEMS

<b>FIRST SEMESTER</b>		<b>SH</b>
ACC 110 Prin of Accounting I	3	
CIS 104 Computer Science I	3	
ENG 112 Composition I	3	
General Ed Elective	3-6	

<b>SECOND SEMESTER</b>	
BUS 130 Intro to Bus & Mgmt	3
CIS 204 Computer Science II	3
COM 101 Oral Communication	3
MA 125 OR 314	3
Fine Arts Elective	3

<b>THIRD SEMESTER</b>	
CIS 105 Bus Program Concepts I	3
CIS 330 Computer Organization	3
ECO 101 OR 102	3
MA 129, 260 OR 280	3
General Ed Electives	3

<b>FOURTH SEMESTER</b>	
ACC 315 OR 350	3
BUS 230 Management Principles	3
CIS 205 Bus Program Concepts II	3
MA 170 OR 231	3
General Ed Electives	6-9

<b>FIFTH SEMESTER</b>	
CIS 301 Data Structures	3
ENG 313 Composition/Lit II	3
Major/Related Elective	3-6
General Ed Electives	3-6

## PROGRAMS

SIXTH SEMESTER	
CIS 308 OR BUS 250	3
Major/Related Elective	3-6
General Ed Electives	3-6
Free Elective	3
SEVENTH SEMESTER	
CIS 310 Systems Analysis	3
CIS 340 OR 490	3
Major elective	3
General Ed Electives	3-6
Free Electives	3-6
EIGHTH SEMESTER	
CIS 401 Mgmt Inform Systems	3
Major/Related Electives	3-6
General Ed Electives	3-6
Free elective	3-6

Degree: Bachelor of Science  
Major: Computer & Information Sciences  
Emphasis: Information Systems  
Department: Computer Science  
Chairperson: Dr. Mary Robinson-Slabey  
Location: Home Economics Building  
Phone: (717) 662-4550

THIRD, FOURTH, FIFTH, SIXTH, SEVENTH AND EIGHTH SEMESTERS	
ANH 301 OR 304	3
ECO 333 International Economics	3
ENG 313 Composition/Lit II	3
PSC 212 Comparative Politics	3
PSC 235 Scope and Methods	3
PSC 310 OR 315	3
PSC 410 Global Issues	3
Foreign Language Electives	12 (one language)
Free Electives	
General Ed Electives	
History Electives	6

It is strongly recommended that students spend a semester or year abroad for further study and/or field experience.

Degree: Bachelor of Arts  
Major: Political Science  
Emphasis: Interdisciplinary/  
International Studies  
Department: Politics and Economics  
Chairperson: Dr. Albert Dalmolen  
Contact: Dr. Albert Dalmolen  
Location: Pinecrest Manor  
Phone: (717) 662-4762

### INTERDISCIPLINARY/INTERNATIONAL STUDIES

Degree: BA, Political Science

This program explores international issues, global problems, and comparisons among a variety of societies. Beyond the core courses in political science, the emphasis is strongly interdisciplinary as students take courses in history, geography, anthropology, and economics. Courses include: World Politics, Comparative Politics, Cultural Anthropology, International Economics, World Regional Geography, and History (of a region). With more employers demanding international competence and sensitivities, this program offers solid preparation in numerous fields.

Some careers: Government, politics, business, law, journalism, teaching, research, and military service.

### INTERDISCIPLINARY/INTERNATIONAL STUDIES

FIRST SEMESTER	
ANH 101 Cultural Anthropology	3
ENG 112 Composition I	3
HST 101 OR 102	3
PSC 101 American Politics	3
Fine Arts Elective	3
SECOND SEMESTER	
COM 101 Oral Communication	3
ECO 101 Principles of Macroecon	3
GEG 101 World Regional Geography	3
PSC 210 World Politics	3
General Ed Electives	3

### INTERNATIONAL BUSINESS

Degree: BS, Business Administration

Living in a global society, many of the businesses and industries which are the employers of the future conduct business on an international scale. This program builds sensitivity and an appreciation for the global environment in which you may work upon graduation. In addition to a strong business administration background, there is exposure to courses such as international finance and international marketing. Students are encouraged to develop a working proficiency in a foreign language.

Some careers: Since nearly everything in the world is related to business, career opportunities are limited only by the imagination. New careers evolve each year.

### INTERNATIONAL BUSINESS

FIRST SEMESTER	
ACC 110 Prin of Accounting I	3
COM 101 Oral Communication	3
ECO 101 Prin of Macroecon	3
ENG 112 Composition I	3
Electives	3
SECOND SEMESTER	
ACC 111 Prin of Accounting II	3
BUS 230 Management Principles	3
ECO 102 Prin of Microecon	3
Fine Arts Elective	3
Electives	3

<b>THIRD SEMESTER</b>	
ACC 315 OR 350	3
CIS 203 Software for Bus Appl	3
MA 129 Finite Mathematics	3
MA 170 OR 231	3
Foreign Language Elective	3
Electives	3
<b>FOURTH SEMESTER</b>	
BUS 301 Intro to Finance	3
BUS 321 Envrmnt & Mgmt Int'l Bus	3
BUS 330 Marketing	3
MA 125 Intro to Stats	3
Foreign Language Elective	3
Electives	6
<b>FIFTH SEMESTER</b>	
BUS 349 Quantitative Bus Anly	3
BUS 402 Corporate Finance	3
BUS 451 Behav Approach to Mgmt	3
ENG 313 Composition/Lit II	3
Electives	3
<b>SIXTH SEMESTER</b>	
BUS 333 Intrn'l Financial Mgmt	3
BUS 350 Production Mgmt	3
BUS 410 Business Law I	3
BUS 422 Intrn'l Marketing	3
Internat'l Studies Elective	3
Electives	3
<b>SEVENTH SEMESTER</b>	
BUS 403 OR PSC 310	3
ECO 333 Intrn'l Economics	3
Electives	12
<b>EIGHTH SEMESTER</b>	
BUS 441 Financial Statement Anly	3
BUS 490 Business Policy	3
Electives	12

Degree: Bachelor of Science  
 Major: Business Administration  
 Emphasis: International Business  
 Department: Business Administration  
 Chairperson: Dr. Gopalan Kutty  
 Location: Home Economics Center  
 Phone: (717) 662-4516

## JOURNALISM

Degree: BS, Mass Communication

As the world becomes increasingly service and information oriented, there is an increased need for persons with journalism skills. Professionals who can gather and write, as well as manage information, are in demand.

Core courses include: mass media, communication theory, journalism, crisis reporting, media design, and creative journalism, among others.

Some careers: Journalist, information specialist; technical writer for newspapers, in-house magazines, commercial magazines, and advertising, as well as other fields.

## JOURNALISM

<b>FIRST SEMESTER</b>	
ENG 112 Composition I	SH 3
JN 100 Journalism	3
General Ed Electives	7-10

<b>SECOND SEMESTER</b>	
COM 101 Oral Communication	3
JN 210 Media Design	3
Fine Arts Elective	3
General Ed Electives	5-8

<b>THIRD SEMESTER</b>	
COM 201 Intro Mass to Media	3
JN 310 Interpretative Journ	3
General Ed Electives	2-5
Major/Related Electives	6

<b>FOURTH SEMESTER</b>	
JN 200 Crisis Reporting	3
General Ed Electives	6-8
Major/Related Electives	6

<b>FIFTH SEMESTER</b>	
ENG 313 Composition/Lit II	3
JN 320 Creative Journalism	3
General Ed Electives	3-6
Major/Related Electives	6

<b>SIXTH SEMESTER</b>	
COM 400 Communication Theory	3
COM 440 Communication Law	3
JN 330 Press Performance	3
General Ed Electives	3
Major/Related Electives	6

<b>SEVENTH SEMESTER</b>	
COM 340 Professional Issues	3
Internship OR Electives	6-15

<b>EIGHTH SEMESTER</b>	
Internship OR	6-15
General Ed Electives	12-18

Degree: Bachelor of Science  
 Major: Mass Communication  
 Emphasis: Journalism  
 Department: Communication & Theater  
 Chairperson: Mr. Michael D. Leiboff  
 Location: South Hall  
 Phone: (717) 662-4786

## PROGRAMS

### MARKETING

Degree: BS, Business Administration

This emphasis takes a solid business administration core foundation and provides a variety of marketing courses. Marketing courses are designed to prepare students for career opportunities in marketing related disciplines such as retail management, distribution management, sales, advertising, promotion, industrial marketing, international marketing, marketing research, and a multitude of diverse opportunities in the field.

The business administration core and marketing background may be strengthened by an internship within area businesses and/or governmental agencies.

Some careers: Retail management, distribution management, sales, advertising, promotion, industrial marketing, international marketing, and marketing research. Careers in marketing extend to nonprofit and public organizations such as educational institutions, charitable and religious organizations, hospitals, and government agencies.

### MARKETING

FIRST SEMESTER	SH
ACC 110 Prin of Accounting I	3
COM 101 Oral Communication	3
ENG 112 Composition I	3
MA 129 Finite Math	3
Elective	3

SECOND SEMESTER	SH
ACC 111 Prin of Accounting II	3
ECO 101 Prin of Macroecon	3
MA 170 OR 231	3
SOC 101 Intro to Sociology	3
Fine Arts Electives	3
Electives	3

THIRD SEMESTER	SH
ACC 315 OR 350	3
BUS 230 Management Principles	3
ECO 102 Prin of Microecon	3
MA 125 Intro to Stats	3
Electives	3

FOURTH SEMESTER	SH
BUS 330 Marketing	3
BUS 349 Quant Bus Anly	3
CIS 203 Software Bus Appl	3
Electives	6

FIFTH SEMESTER	SH
BUS 301 Intro to Finance	3
BUS 302 Managerial Decision Making	3
BUS 350 Production Mgmt	3
ENG 313 Composition/Lit II	3
Marketing Electives (300/400 level) *	6

SIXTH SEMESTER	SH
BUS 402 Corporate Finance	3

BUS 410 Business Law I	3
BUS 451 Behav Approach Mgmt	3
Electives	6

SEVENTH SEMESTER	SH
BUS 441 Financial Statement Anly	3
Marketing Electives (300/400 level) *	6
Electives	3

EIGHTH SEMESTER	SH
BUS 415 Marketing Mgmt	3
BUS 490 Business Policy	3
Electives	8

*12 SH required for Marketing emphasis:	SH
BUS 332 Promotion in Marketing	3
BUS 334 Market Research	3
BUS 370 Salesmanship	3
BUS 420 Mktg for Non-Profit Organiz	3
BUS 421 Mktg Channels Distribution	3
BUS 422 International Marketing	3
BUS 423 Industrial Marketing	3
BUS 424 Sales Force Management	3
BUS 425 Current Marketing Problems	3

Degree: Bachelor of Science  
 Major: Business Administration  
 Emphasis: Marketing  
 Department: Business Administration  
 Chairperson: Dr. Gopalan Kutty  
 Location: Home Economics Center  
 Phone: (717) 662-4516

### MATHEMATICS

Degree: BA, Mathematics

Some Careers: Positions in business and industry.  
 Graduate work in mathematics or other career-related fields.

### MATHEMATICS

FIRST SEMESTER	SH
COM 101 Oral Communication	3
ENG 112 Composition I	3
MA 231 Calculus I	4
Electives	6

SECOND SEMESTER	SH
MA 232 Calculus II	4
PHY 188 Genl Physics I	4
Fine Arts Elective	3
Electives	5

THIRD SEMESTER	SH
MA 233 Calculus III	4
MA 260 Discrete Structures	3
PHY 211 Genl Physics II	4
Electives	5

<b>FOURTH SEMESTER</b>	
MA 280 Linear Alg & Matrix Thry	3
Electives	13
<b>FIFTH SEMESTER</b>	
ENG 313 Composition/Lit II	3
MA 345 Real Analysis I	3
Mathematics Electives (300/400 level)	3
Electives	7
<b>SIXTH SEMESTER</b>	
MA 314 Applied Prob & Stats	3
MA 361 Modern Algebra I	3
Electives	10
<b>SEVENTH SEMESTER</b>	
Mathematics Electives (300/400 level)	6
Electives	10
<b>EIGHTH SEMESTER</b>	
Mathematics Electives (300/400 level)	6
Electives	10

Degree: Bachelor of Arts  
 Major: Mathematics  
 Department: Mathematics  
 Chairperson: Prof. Wellington C. Engel  
 Location: Home Economics Center  
 Phone: (717) 662-4700

<b>MA 311 Differential Equations I</b>	3
Electives	10
<b>FIFTH SEMESTER</b>	
ENG 313 Composition/Lit II	3
MA 308 Operations Research	3
MA 312 Differential Equations II	3
Electives	7

<b>SIXTH SEMESTER</b>	
MA 314 Applied Prob & Stats	3
Mathematics Electives (300/400 level)	3
Electives	9

<b>SEVENTH SEMESTER</b>	
MA 345 Real Analysis I	3
Mathematics Electives (300/400 level)	3
Electives	9

<b>EIGHTH SEMESTER</b>	
Mathematics Electives (300/400 level)	3
Electives	12

Degree: Bachelor of Science  
 Major: Mathematics  
 Department: Mathematics  
 Chairperson: Prof. Wellington C. Engel  
 Location: Home Economics Center  
 Phone: (717) 662-4700

## MATHEMATICS

Degree: BS, Mathematics

Some careers: Business and industry including statistics and operations research. Graduate work in mathematics or other career-related fields.

## MATHEMATICS

<b>FIRST SEMESTER</b>	SH
COM 101 Oral Communication	3
ENG 112 Composition I	3
MA 231 Calculus I	4
Electives	7

<b>SECOND SEMESTER</b>	
MA 232 Calculus II	4
PHY 188 General Physics I	4
Fine Arts Elective	3
Electives	6

<b>THIRD SEMESTER</b>	
MA 233 Calculus III	4
MA 260 Discrete Structures	3
PHY 211 General Physics II	4
Electives	6

<b>FOURTH SEMESTER</b>	
MA 280 Linear Alg & Matrix Thry	3

## MATHEMATICS

Degree: BSE, Mathematics

The mathematics courses are designed to (1) provide preparation for teaching of all courses in the modern high school mathematics curriculum, (2) enable the student to develop basic understanding in many facets of mathematics, (3) provide adequate background in the "main stream" of contemporary mathematics so that the student can further explore areas of individual interest, and (4) provide the background necessary for the study of mathematics at the graduate level. In short, students are equipped to provide leadership in the teaching profession and to enjoy success in further study of mathematics in graduate schools commensurate with their abilities and interests.

Some Careers: Teaching secondary school mathematics.

## MATHEMATICS (7-12)

<b>FIRST SEMESTER</b>	SH
COM 101 Oral Communication	3
ED 101 Intro to Education	1
ENG 112 Composition I	3
MA 231 Calculus I	4
PSY 101 Intro to Psychology	3
Electives	3

<b>SECOND SEMESTER</b>	
MA 232 Calculus II	4
PHY 188 Genl Physics I	4

## PROGRAMS

Fine Arts Electives	3	range from general chemistry to immunology. Clinical studies include clinical microscopy, hematology, and histologic techniques.
Electives	6	
<b>THIRD SEMESTER</b>		
ED 202 Sec Pre-Prof Exper	2	Some careers: Most jobs in this profession are in hospitals, but there are some opportunities in industrial medical research. Persons with a four-year degree in this area have much more opportunity for career growth in related management and leadership positions.
MA 233 Calculus III	4	
MA 260 Discrete Structures	3	
PHY 211 Genl Physics II	4	
Electives	3	
<b>FOURTH SEMESTER</b>		
ED/PSY 305 Educational Psy	3	<b>MEDICAL TECHNOLOGY</b>
HST 201 OR 202	3	
MA 280 Linear Alg & Matrix Thry	3	
MA 329 Modern Geometry I	3	
Electives	4	
<b>FIFTH SEMESTER</b>		
ED 410 Hist & Current Issues	3	<b>FIRST SEMESTER</b>
ED 314 Tchg Math Sec Sch	3	SH
ENG 313 Composition/Lit II	3	BIO 210 Zoology 4
PSY 321 Adolescent Psych	3	CHM 111 General Chemistry I 4
MA 304 History & Philosophy of Math	3	ENG 112 Composition I 3
Mathematics Electives (300/400 level)	3	MA 231 Calculus I 4
<b>SIXTH SEMESTER</b>		<b>SECOND SEMESTER</b>
ED 301 Evaluative Tech	2	CHM 112 General Chemistry II 4
ED 302 Instructional Tech	2	COM 101 Oral Communication 3
ED 310 Basic Reading Pract	3	Fine Arts Elective 3
MA 314 Applied Prob & Stats	3	General Ed Electives 6
MA 361 Modern Algebra I	3	
Mathematics Elective (300/400 level)	3	<b>THIRD SEMESTER</b>
<b>SEVENTH SEMESTER</b>		BIO 111 Intro Cell Biology 4
SPE 360 Exceptional Children	3	CHM 301 Organic Chemistry I 4
Mathematics Electives (300/400 level)	6	MA 125 OR 232 3
Electives	7	General Ed Electives 3
<b>EIGHTH SEMESTER</b>		<b>FOURTH SEMESTER</b>
ED 400 Student Teaching	12	BIO 332 Physiology 4
Degree: Bachelor of Science in Education		CHM 302 Organic Chemistry II 4
Major: Mathematics		General Ed Electives 9
Departments: Education		
Mathematics		<b>FIFTH SEMESTER</b>
Chairpersons: Dr. Robert C. Putt		BIO 355 Microbiology 3
Prof. Wellington C. Engel		CHM 311 Quantitative Analysis 4
Locations: Retan Center		ENG 313 Composition/Lit II 3
Home Economics Center		PHY 191 Physics I 4
Phones: (717) 662-4562 (717) 662-4700		General Ed Electives 3

Degree: Bachelor of Science in Education  
 Major: Mathematics  
 Departments: Education  
     Mathematics  
 Chairpersons: Dr. Robert C. Putt  
     Prof. Wellington C. Engel  
 Locations: Retan Center  
     Home Economics Center  
 Phones: (717) 662-4562 (717) 662-4700

## MEDICAL TECHNOLOGY

Degree: BS, Medical Technology

This four-year program includes three years of academic study at Mansfield and one year clinical study at an approved hospital school of medical technology. The program provides background necessary to sit for the exam to become a registered medical technologist. Courses at MU

<b>SIXTH SEMESTER</b>	
BIO 380 Immunology	3
Biology Elective	1
Electives	8
General Ed Electives	3
<b>SEVENTH AND EIGHTH SEMESTERS</b>	
(Clinical year at hospital)	
Clinical Chemistry	8
Hematology	7
Immunohematology	4
Microbiology (Clinical)	8
Mgmt and Education	1
Serology/Immunology	4

If you change your curriculum or are not accepted by a hospital school of medical technology, you may complete your fourth year at MU and receive

the BS degree in biology. This option is available because the biology department cannot guarantee acceptance to any hospital school of medical technology.

#### SEVENTH AND EIGHTH SEMESTERS (for Bachelor of Science in Biology)

PHY 192 Physics II	4
Biology and Free Electives	28

Degree: Bachelor of Science
Major: Medical Technology
Department: Biology
Chairperson: Dr. David C. Flesch
Program Director: Dr. John Sternick
Location: Grant Science Center
Phone: (717) 662-4530

**MUSIC**

Degree: BA, Music

Core program courses include those in Basic Music, Classic and Romantic Music, Post-Romantic and 20th Century Music, Medieval and Renaissance, and Baroque Music. This program provides an excellent foundation for graduate work in preparation to teach at the college-university level, or in private school. With additional post-baccalaureate training graduates are qualified to work as a music librarian.

**MUSIC****FIRST SEMESTER**

	SH
ENG 112 Composition I	3
MAP 3 Primary Applied	1
MAP 3 Secondary Applied	1
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
MU 211 Basic Music I	3
MU 221 Classic & Rom Mu	3
General Ed Electives	4

**SECOND SEMESTER**

COM 101 Oral Communication	3
MAP 3 Primary Applied	1
MAP 3 Secondary Applied	1
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
MU 212 Basic Music II	3
MU 222 Post Rom & 20th Cntry	3
General Ed Electives	4

**THIRD SEMESTER**

MAP 3 Primary Applied	1
MEN 000 Recital Attend	0
MEN 2 Large Ensemble	0
MU 311 Basic Music III	3
MU 321 Medieval & Renaiss	3
Fine Arts Elective	3
General Ed Electives	3

**FOURTH SEMESTER**

MAP 3 Primary Applied	1
MEN 000 Recital Attend	0
MEN 2 Large Ensemble	0
MU 312 Basic Music IV	3
MU 322 Baroque & Pre-Classic	3
General Ed Electives	9

**FIFTH SEMESTER**

ENG 313 Composition/Lit II	3
MAP 3 Primary Applied	1
MEN 000 Recital Attend	0
MEN 2 Large Ensemble	0
Music Theory or Lit Elect	3
Free/Non-Music Electives	8
General Ed Electives	4

**SIXTH SEMESTER**

MAP 3 Primary Applied	1
MEN 000 Recital Attend	0
MEN 2 Large Ensemble	0
Music Electives	3
Free/Non-Music Electives	8
General Ed Electives	3

**SEVENTH SEMESTER**

MAP 3 Primary Applied	1
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
Free/Non-Music Electives	15

**EIGHTH SEMESTER**

MAP 3 Primary Applied	1
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
Free/Non-Music Electives	15

Degree: Bachelor of Arts
Major: Music
Department: Music
Chairperson: Dr. Joyce Wunderlich
Location: Butler Music Center
Phone: (717) 662-4710

**MUSIC EDUCATION**

Degree: BM, Music Education

Mansfield is known for the soundness of its music offerings. This program provides excellent training for a career in music education. It also prepares students to continue their studies in graduate school.

Students must successfully pass an audition in their instrument specialty or voice as well as an interview with music faculty before being formally admitted into the program.

Some careers: Many of our graduates teach K-12 and on the college level as well as privately. This program has been used as a springboard to successful careers in such fields as business, communications, and the arts. Mansfield

## PROGRAMS

music graduates are employed throughout the U.S. and in various locations throughout the world.

### MUSIC EDUCATION (K-12) Instrumental/General Classroom Track

FIRST SEMESTER		SH
ENG 112 Composition I	3	
MAP 113 Piano Class I	1	
MAP 151 String Class I	1	
MAP Primary Applied	2	
MEN 000 Recital Attend	0	
MEN 301 Chorus	1	
MEN Band or Orchestra	1	
MU 141 Intro to Music Ed	1	
MU 211 Basic Music I	3	
MU 221 Classic & Romantic	3	
SECOND SEMESTER		
COM 101 Oral Communication	3	
MAP 114 Piano Class II	1	
MAP 152 String Class II	1	
MAP Primary Applied	1	
MEN 000 Recital Attend	0	
MEN 301 Chorus	1	
MEN Band or Orchestra	1	
MU 212 Basic Music II	3	
MU 222 Post Rom & 20th Cntry	3	
PSY 101 Intro to Psychology	3	
THIRD SEMESTER		
MAP 101 Voice Class I	1	
MAP Brass Class I or II	1	
MAP Piano Class	1	
MEN 000 Recital Attend	0	
MEN Band or Orchestra	1	
MU 151 Eurythmics I	1	
MU 311 Basic Music III	3	
MU 321 Medieval & Renaiss	3	
Fine Arts Elective	3	
FOURTH SEMESTER		
MAP Band or Orchestra	1	
MAP Brass Class I or II	1	
MAP Primary Applied	2	
MEN 000 Recital Attend	0	
MEN Band or Orchestra	1	
MU 152 Euryth II/Bas Conduct	1	
MU 312 Basic Music IV	3	
MU 322 Baroque & Pre-Classical	3	
MU 341 Music in Elem School	2	
General Ed Electives	3	
FIFTH SEMESTER		
ENG 313 Composition/Lit II	3	
MAP Primary Instrument	2	
MAP Woodwind Class I or II	1	
MEN 000 Recital Attend	0	
MEN Band or Orchestra	1	
MU 315 Orchestration	3	

MU 317 Keyboard Skills I	1
MU 342 Music in Sec School	2
MU 351 Instrumental Conduct	2
General Ed Electives	3

SIXTH SEMESTER	
ED/PSY 305 Educational Psych	3
MAP 161 Percussion Class	1
MAP Primary Instrument	2
MAP Woodwind Class I or II	1
MEN 000 Recital Attend	0
MEN Band or Orchestra	1
MU 318 Keyboard Skills II	1
MU 343 Instru Mus Pub Sch	2
General Ed Electives	7

SEVENTH SEMESTER	
ED 401 Hist & Phil Ed	3
MAP Primary Instrument	2
MEN 000 Recital Attend	0
MEN Band or Orchestra	1
General Ed Electives	9
Electives	2

EIGHTH SEMESTER	
MU 400 Student Teaching	12

Degree: Bachelor of Music  
Major: Music Education  
Department: Music  
Chairperson: Dr. Joyce Wunderlich  
Location: Butler Music Center  
Phone: (717) 662-4710

### MUSIC EDUCATION (K-12) Vocal/General Classroom Track

FIRST SEMESTER		SH
ENG 112 Composition I	3	
MAP 151 String Class I	1	
MAP Piano Class	1	
MAP Primary Applied	2	
MEN 000 Recital Attend	0	
MEN 301 Chorus	1	
MU 141 Intro to Music Ed	1	
MU 211 Basic Music I	3	
MU 221 Classic & Romantic	3	
SECOND SEMESTER		
COM 101 Oral Communication	3	
MAP 152 String Class	1	
MAP Piano Class	1	
MAP Primary Instrument	1	
MEN 000 Recital Attend	0	
MEN 301 Chorus	1	
MU 212 Basic Music II	3	
MU 222 Post Rom & 20th Cntry	3	
PSY 101 Intro to Psychology	3	

<b>THIRD SEMESTER</b>	
MAP 141 Brass Class I	1
MAP Adv Piano or Voice Class	1
MEN 000 Recital Attend	0
MEN 301 Chorus	1
MU 151 Eurythmics I	1
MU 311 Basic Music III	3
MU 321 Medieval & Renaiss	3
Fine Arts Elective	3
General Ed Electives	3

<b>EIGHTH SEMESTER</b>	
MU 400 Student Teaching	12

Degree: Bachelor of Music  
 Major: Music Education  
 Department: Music  
 Chairperson: Dr. Joyce Wunderlich  
 Location: Butler Music Center  
 Phone: (717) 662-4710

<b>FOURTH SEMESTER</b>	
MAP 157 Guitar Class	1
MAP Adv Piano or Voice	1
MAP Primary Applied	2
MEN 000 Recital Attend	0
MEN 301 Chorus	1
MU 152 Euryth II/Bas Conduct	1
MU 312 Basic Music IV	3
MU 322 Baroque & Pre-Classic	3
MU 341 Music in Elem School	2
General Ed Electives	3

<b>FIFTH SEMESTER</b>	
ENG 313 Composition/Lit II	3
MAP 131 Woodwind Class I	1
MAP Adv Piano or Voice Class	1
MAP Primary Instrument	2
MEN 000 Recital Attend	0
MEN 301 Chorus	1
MU 315 Orchestration	3
MU 317 Keyboard Skills I	1
MU 342 Music in Sec School	2
MU 350 Choral Conducting	2

<b>SIXTH SEMESTER</b>	
ED/PSY 305 Educational Psych	3
MAP 161 Percussion Class	1
MAP Adv Piano or Voice Class	1
MAP Primary Instrument	2
MAP Woodwind Class I or II	1
MEN 000 Recital Attend	0
MEN 301 Chorus	0
MEN Band or Orchestra	1
MU 318 Keyboard Skills II	1
MU 344 Vocal/Chor Mus Pub Sch	2
Elective	4
General Ed Electives	6

<b>SEVENTH SEMESTER</b>	
ED 401 Hist & Phil Educ	3
MAP 161 Percussion Class	1
MAP 231 Woodwind Class II	1
MAP Primary Instrument	2
MEN 000 Recital Attend	0
MEN 301 Chorus	1
General Ed Electives	9

**MUSIC:ELECTIVE STUDIES IN BUSINESS**

Degree: BM, Music:Elective Studies in Business

If you have musical abilities and want to apply them to such dynamic businesses as the recording industry, marketing, and sales this program is for you. It provides training in music and an excellent business background for what some people consider the best of both worlds — music in business. Music courses are mixed with general education, business and management, marketing, business, and law among others.

Some careers: Open your own music business or join one of the numerous upwardly mobile management positions in the entertainment industry. There are jobs with music publishing houses, music education, companies, sheet music publishers, among others.

**MUSIC:ELECTIVE STUDIES IN BUSINESS**

<b>FIRST SEMESTER</b>	
BUS 130 Intro Bus & Mgmt	3
ENG 112 Composition I	3
MAP 101 Voice Class I	1
MAP Major	1
MAP Piano	1
MEN 000 Recital Attend	0
MEN Ensemble	1
MU 211 Basic Music I	3
MU 221 Classic & Rom Mus	3
Electives	2

**SECOND SEMESTER**

CIS 103 Intro Microcomputers	3
MAP 151/155 Str/Guitar Class	1
MAP Major	1
MAP Piano	1
MEN 000 Recital Attend	0
MEN Ensemble	1
MU 212 Basic Music II	3
MU 222 Post Rom & 20th Cntry	3
Fine Arts Elective	3
Elective	1

**THIRD SEMESTER**

COM 101 Oral Communication	3
ECO 102 Prin of Microecon	3
MAP Brass Class	1
MAP Major	1
MEN 000 Recital Attend	0

## PROGRAMS

MEN Ensemble	1
MU 311 Basic Music III	3
MU 321 Medieval & Renaissance	3
General Ed Elective	3
<b>FOURTH SEMESTER</b>	
COM 210 Intro Public Relations	3
MAP 161 Percussion	1
MAP Major	1
MEN 000 Recital Attend	0
MEN Ensemble	1
MU 312 Basic Music IV	3
MU 322 Baroque & Pre-Classical	3
MU 481 Svy of Bus of Mus	3
General Ed Elective	3
<b>FIFTH SEMESTER</b>	
BUS 330 Marketing	3
ENG 313 Composition/Lit II	3
MAP Major	1
MAP Woodwind Class	1
MEN 000 Recital Attend	0
MEN Ensemble	1
MU 317 Keyboard Skills I	1
General Ed Electives	6
<b>SIXTH SEMESTER</b>	
BUS 370 Salesmanship	3
MAP Major	1
Music electives	3
MEN 000 Recital Attend	0
MEN Ensemble	1
MU 318 Keyboard Skills II	1
Merchandising Track Course	3
General Ed elective	6
<b>SEVENTH SEMESTER</b>	
ACC 110 Prin of Accounting I	3
BUS 410 Business Law I	3
MAP Major	1
MEN 000 Recital Attend	0
MEN Ensemble	1
MU 350 OR 351	2
Merchandising Track Course	3
General Ed Elective	3
<b>EIGHTH SEMESTER</b>	
MU 489 Internship	12

Degree: Bachelor of Music  
 Major: Music  
 Emphasis: Mus:Elective Studies in Business  
 Department: Music  
 Chairperson: Dr. Joyce Wunderlich  
 Location: Butler Music Center  
 Phone: (717) 662-4710

All students must pass First Piano Proficiency Examination  
 Secondary Studies: 2 piano 1 str/guitar 1 woodwind 1 brass 1 perc  
 1 voice.

### MUSIC PERFORMANCE

Degree: BM, Music Performance

Small classes and much individual attention characterize this program. Students must choose an emphasis in one of three areas: **Instrument, keyboard or voice**. Students will receive academic preparation in the history of music, and both classroom and actual experience in ensemble and solo work. This program is demanding, but the preparation is the best.

Some careers: Performing, composing, and related areas. Primarily excellent preparation for graduate school.

### MUSIC PERFORMANCE

FIRST SEMESTER		SH
COM 101 Oral Communication	3	
MAP 2 Secondary Applied	1	
MAP 4 Primary Applied	4	
MEN 000 Recital Attend	0	
MEN 3 Large Ensemble	1	
MU 221 Classic & Rom Mus	3	
MU 211 Basic Music I	3	
General Ed Electives	1	

### SECOND SEMESTER

ENG 112 Composition I	3
MAP 2 Secondary Applied	1
MAP 4 Primary Applied	4
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
MU 212 Basic Music II	3
MU 222 Post Rom & 20th Cntry	3
General Ed Electives	1

### THIRD SEMESTER

MAP 2 Secondary Applied	1
MAP 4 Primary Applied	4
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
MU 151 Eurythmics I	1
MU 311 Basic Music III	3
MU 321 Medieval & Renaissance	3
Fine Arts Elective	3

### FOURTH SEMESTER

MAP 2 Secondary Applied	1
MAP 4 Primary Applied	4
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
MU 152 Euryth II/Bas Conduct	1
MU 312 Basic Music IV	3
MU 322 Baroque & Pre-Classical	3
General Ed Electives	3

**FIFTH SEMESTER**

ENG 313 Composition II/Lit	3
MAP 2 Secondary Applied	1
MAP 4 Primary Applied	4
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
MU 350 OR 351	2
General Ed Electives	6

**SIXTH SEMESTER**

MAP 2 Secondary Applied	1
MAP 4 Primary Applied	4
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
Music Elective	3
General Ed Electives	4
Hist, Lit & Theory Elective	3

**SEVENTH SEMESTER**

MAP 2 Secondary Applied	1
MAP 4 Primary Applied	4
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
Music Elective	2
Electives	1
General Ed Electives	5
Hist, Lit & Theory Elective	2

**EIGHTH SEMESTER**

MAP 2 Secondary Applied	1
MAP 4 Primary Applied	4
MEN 000 Recital Attend	0
MEN 3 Large Ensemble	1
MU 475, 476 or 477	3
General Ed Electives	6

Degree: Bachelor of Music

Major: Music Performance

Department: Music

Chairperson: Dr. Joyce Wunderlich

Location: Butler Music Center

Phone: (717) 662-4710

**MUSIC THERAPY**

Degree: BM, Music Therapy

You love music and helping people. This program provides intensive training in music, along with a solid background in psychology and sociology in preparation for work as a registered therapist with people of all ages who have emotional and physical difficulties. It includes four years of on-campus work plus a six month internship with a registered music therapist. A fairly new profession, music therapy is growing slowly as more and more institutions and businesses become aware of its importance.

Some careers: Music therapist in a mental hospital, geriatric center, day care facility, community health center, or special service agency. Public schools are also beginning to hire music therapists. Students can earn certifica-

tion in music education and music therapy to broaden their career market.

**MUSIC THERAPY**

(course requirements, not semester sequence)

**PROFESSIONAL COURSES**

MTH 171 Therapy Orientation	3
MTH 210 Clinical Integration I	1
MTH 211 Clinical Integration II	1
MTH 211L Clinical Orientation Lab	1
MTH 372 Psych-SOC Found of Music	3
MTH 410 Adv Clinical Integratn I	1
MTH 410 Adv Clinical Integratn I	1
MTH 411 Adv Clinical Integratn II	1
MTH 411 Adv Clinical Integratn II	1
MTH 471 Influence of Music on Behavior	3
MTH 472 Music in Therapy	3
MTH 475 Internship	2

**MUSIC**

MAP Primary Applied	8
MAP Secondary Applied	10
MEN Ensembles	4
MU 151 Eurythmics I	1
MU 152 Eurythmics II/Bas Conduct	1
MU 211 Basic Music I	3
MU 212 Basic Music II	3
MU 221 Classic & Rom Mus	3
MU 222 Post Rom & 20th Cntry	3
MU 311 Basic Music III	3
MU 312 Basic Music IV	3
MU 315 Orchestration	3
MU 317 Keyboard Skills I	1
MU 318 Keyboard Skills II	1
MU 321 Medieval & Renaiss	3
MU 322 Baroque & Pre-Class	3

**MAJOR/RELATED ELECTIVES**

BIO 103 Human Anatomy	4
PSY 202,250, SOC 307 OR 308	3
PSY 291 Abnormal Psychology	3
SPE 101 Exceptional Persons	3
Soc/Anthro Elective	3

**GENERAL EDUCATION**

COM 101 Oral Communication	3
ENG 112 Composition I	3
ENG 313 Composition/Lit II	3
Fine Arts Electives	3
PSY 101 Intro to Psychology	3
PSY 290 Life Span Development	3

Degree: Bachelor of Music

Major: Music Therapy

Department: Music

Chairperson: Dr. Joyce Wunderlich

Location: Butler Music Center

Phone: (717) 662-4710

## PROGRAMS

All students must pass First Piano Proficiency Examination  
Secondary Studies: 2 pno 1 str/guitar 1 ww 1 brass 1 perc  
1 voice.

### NURSING

Degree: BSN, Nursing

This degree is rapidly becoming a standard means of preparation for professional nursing.

Our state-approved, National League for Nursing accredited baccalaureate nursing program provides a solid background in nursing, as well as, the liberal arts and sciences. It prepares students to work in a variety of professional settings including opportunity for advancement in their career.

Students will spend their first two years at the MU campus taking courses in general education and in the major. The second two years will be at the Guthrie Medical Center campus in Sayre, PA. where they will gain extensive clinical experience in a wide range of specialty care units. They will also have a chance to learn in community settings such as nursing homes, school districts, nursery schools, and outpatient clinics.

This program is designed to develop the attitude, knowledge, and skills needed to work in various acute care and community settings with other members of the health care team. As a critical part of this team students will help plan and deliver comprehensive health care to clients of all ages. Health care today is a major industry that offers nursing graduates career mobility with hundreds of job opportunities. Nurses throughout the country are involved in many facets of health care; education, research, publication, and consultation. Traditional roles have become more critical, more challenging and the field continues to grow. This means that you will see even more opportunities for jobs and advancement in the industry. There has never been a better time for serious professionals to enter the field.

The Robert Packer Department of Health Sciences, Nursing at Mansfield University blends the resources of a public university and a medical center. This combination adds up to a program that is strong both academically and clinically. It is the only program of its kind in Pennsylvania or New York State.

Some careers: Graduates of our program may seek employment in one of several areas of a hospital, such as critical care, dialysis, obstetrics, and staff development or community health in various types of agencies. Opportunities also range from public service agencies to private practice with a physician.

### NURSING

FIRST SEMESTER	SH
CHM 110 Svy/Intro Org & Biochem	4
ENG 112 Composition I	3
Fine Arts Elective	3
General Ed Electives	7

SECOND SEMESTER	
COM 101 Oral Communication	3

MA 125 Intro to Stats	3
PSY 290 Life Span Dev	3
Free Electives	3
General Ed Electives	3

### THIRD SEMESTER

BIO 121 Human Anat & Phys I	4
DIT 111 Intro to Nutrition	3
NUR 250 Intro Nurs & Hlth Care I	4
SOC 101 Intro to Sociology	3
General Ed Electives	3

### FOURTH SEMESTER

BIO 122 Human Anat & Phys II	4
BIO 355 Microbiology	3
NUR 251 Intro Nurs & Hlth Care II	4
PHL 380 Health Care Ethics	3
General Ed Electives	3

### FIFTH SEMESTER

NUR 370 Nurs Care of Adult Client	8
NUR 390 Pharmacological Basis NUR Practice2	
General Ed Electives	6

### SIXTH SEMESTER

ENG 313 Composition/Lit II	3
NUR 371 Nurs Care of Childbearing/Childrearing Families	8
NUR 380 Nurs Physical Assessment	2
NUR 360 Intro to Nursing Research	3

### SEVENTH SEMESTER

NUR 460 Current Issues in Prof Nursing	3
NUR 470 Nurs Care of the Client w/Multisystem Stressors	9
NUR 480 Leadership & Mgmt in Nursing	3

### EIGHTH SEMESTER

NUR 471 Community Health Nursing	6
NUR 472 Mental Health Nursing	6
Nursing Electives	3

Degree: Bachelor of Science in Nursing

Major: Nursing

Department: Robert Packer Health Sciences

Chairperson: Janeen B. Sheehe, MS, RN

Location: Home Economics Center

Phone: (717) 662-4520

### NUTRITION AND DIETETICS

Degree: BS, Nutrition and Dietetics

Approved by the American Dietetics Association, this program includes a summer field experience and specialized courses which include such subject areas as nutrition, chemistry, physiology, communications, biology, and diet therapy among others.

Nutrition and Dietetics offers two alternatives. A post-bac-

calaureate internship is required to become a registered dietitian. In addition to being a registered dietitian students will also be prepared to enter the field in entry level and management track positions.

**Some careers:** This is a growing field. Dietitians are needed in schools, hospitals, industries, commercial food service operations, and a large variety of public and private social service agencies.

#### NUTRITION AND DIETETICS

FIRST SEMESTER	SH
CHM 101 Intro to Chemistry	4
COM 101 Oral Communication	3
PSY 101 Intro to Psychology	3
DIT 111 Intro to Nutrition	3

SECOND SEMESTER	SH
BUS 130 Intro to Bus & Mgmt	3
CHM 102 Organic & Biochem	4
ENG 112 Composition I	3
Fine Arts Elective	3
Sociology Elective (Gen Ed)	3

THIRD SEMESTER	SH
BIO 121 Human Anat & Phys I	4
DIT 215 Principles of Food	3
PSY 291 Abnormal Psychology	3
General Ed Elective	3
Electives	5

FOURTH SEMESTER	SH
BIO 122 Human Anat & Phys II	4
DIT 216 Meal Management	3
ED/PSY 305 Educational Psychology	3
General Ed Electives	3
Electives	3

FIFTH SEMESTER	SH
CHM 201 Intro to Biochemistry	4
DIT 315 Food Service Org & Mgmt	3
DIT 417 Survey of Nutrition	3
ENG 313 Composition/Lit II	3
PSY 300 Helping Skills	3

SIXTH SEMESTER	SH
DIT 314 Nutrition/Life Cycle	3
DIT 410 Diet Therapy	3
ECO 101 OR 102	3
MA 125 Intro to Stats	3
Electives	6
SUMMER SESSION	
DIT 419 Dietetics Practicum	3

SEVENTH SEMESTER	SH
BIO 355 Microbiology	3
DIT 316 Community Nutrition	3
General Ed Elective	3
Electives	6

EIGHTH SEMESTER	SH
DIT 411 Quantity Food Prod	4
General Ed Elective	3
Electives	9

Degree: Bachelor of Science
Major: Nutrition and Dietetics
Department: Robert Packer Health Sciences
Chairperson: Janeen B. Sheehe, MS, RN
Program Director: Kathy Wright, MS ED
Location: Home Economics Center
Phone: (717) 662-4628

#### PERFORMANCE ARTS

Degree: BS, Mass Communication

This program combines acting, play production, broadcasting, and PR skills with liberal arts courses in preparation for the world of performance.

**Some careers:** With the increasing number of cable TV and other outlets, there is a wide choice of careers in various aspects of the entertainment industry and teaching.

#### PERFORMANCE ARTS

FIRST SEMESTER	SH
COM 101 Oral Communication	3
ENG 112 Composition I	3
Fine Arts Elective	3
General Ed Electives	6-9

SECOND SEMESTER	SH
COM 201 Intro Mass Media	3
JN 100 Journalism	3
General Ed Electives	3-6
Major/Related Electives	3

THIRD SEMESTER	SH
COM 203 Voice & Articulation	3
COM 204 Public Speaking	3
General Ed Electives	3-6

FOURTH SEMESTER	SH
COM 200 Oral Interpretation	3
COM 340 Professional Issues	3
General Ed Electives	6-9
Major/Related Electives	6

FIFTH SEMESTER	SH
COM 303 TV & Radio Announcing	3
ENG 313 Composition/Lit II	3
THT 212 Funds of Acting I	3
General Ed Electives	3-6
Major/Related Electives	3

SIXTH SEMESTER	SH
COM 400 Communication Theory	3
COM 440 Communication Law	3
THT 213 Funds of Acting II	3

## PROGRAMS

General Ed Electives	3-6
Major/Related Electives	6
<b>SEVENTH SEMESTER</b>	
THT 314 Play Production Pract	3
Internship OR	6-15
Electives	12-15
<b>EIGHTH SEMESTER</b>	
Internship OR	6-15
Electives	12-15

Degree: Bachelor of Science  
 Program: Mass Communication  
 Emphasis: Performance Arts  
 Department: Communication & Theater  
 Chairperson: Mr. Michael D. Leiboff  
 Location: South Hall  
 Phone: (717) 662-4786

### PHILOSOPHY

Degree: BA and BS, Philosophy

Often students select one of the philosophy programs after taking an introductory course and finding out how exciting and challenging the world of ideas can be. Philosophy is made up of courses that teach critical thinking and how to construct, analyze, and evaluate arguments. Courses in Western and Eastern philosophies are included. With such issues as business ethics, environmental ethics, right-to-life, and other challenges that humanity has never faced before, philosophy has become increasingly important.

The hallmark of this program is its flexibility. Following is a sample sequence geared toward students wishing to use the philosophy major as a step towards a career in international law. This is only one of many possible constructions which could lead to dozens of other emphases, concentrations, or another major. Philosophy is excellent preparation for graduate school.

Some careers: Graduate school specialties include philosophy, medicine, law, MBA in business, etc. Businesses and industries, including the banking industry, are looking for graduates with well-rounded liberal arts backgrounds which philosophy provides.

### PHILOSOPHY

FIRST SEMESTER	SH
COM 101 Oral Communication	3
ENG 112 Composition I	3
PHL 201 Intro to Philosophy	3
General Ed Electives	6
SECOND SEMESTER	
PHL 230 Intro to Logic	3
Fine Arts Elective	3
General Ed Electives	10
THIRD SEMESTER	
General Ed Electives	16

<b>FOURTH SEMESTER</b>	
Philosophy Elective (300/400 level)	3

General Ed Electives	15
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<b>FIFTH SEMESTER</b>	
ENG 313 Composition/Lit II	3
Philosophy Electives	6

Electives	6
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<b>SIXTH SEMESTER</b>	
Philosophy Elective (300/400 level)	3
PHL 420 Classical Greek Philos	3

Electives	9
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<b>SEVENTH SEMESTER</b>	
Philosophy Elective (300/400 level)	3
PHL 422 Topics in Modern Philos	3

Electives	12
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<b>EIGHTH SEMESTER</b>	
Philosophy Electives	6
Electives	6
Fine Arts Elective	3

Degree: Bachelor of Arts  
 Bachelor of Science  
 Major: Philosophy  
 Department: Philosophy  
 Chairperson: Dr. Stephen H. Bickham  
 Location: South Hall  
 Phone: (717) 662-4752

### PHYSICS

Degree: BS, Physics

This program has a heavy concentration in mathematics and physics and includes both classroom and laboratory work. Students learn the principles by which Physicists conduct research on the fundamental laws of nature and their technological applications.

Some careers: Research and development in industry, universities, and government laboratories. Positions in industrial fields such as communications, oil exploration, energy production, electronics, computers, and the space industry. In addition to preparation for graduate studies in physics, this program offers an excellent background for related areas such as oceanography, biophysics, and geophysics, among others.

### PHYSICS

FIRST SEMESTER	SH
ECO 101 Prin of Macroecon	3
ENG 112 Composition I	3
MA 231 Calculus I	4
Electives	7
SECOND SEMESTER	
COM 101 Oral Communication	3
MA 232 Calculus II	4

PHY 188 Genl Physics I	4	MA 232 Calculus II	4
Electives	6	PHY 188 Genl Physics I	4
<b>THIRD SEMESTER</b>			
MA 180 Program for Math Sci	3	THIRD SEMESTER	
MA 233 Calculus III	4	ED/PSY 305 Educational Psych	3
PHY 211 Genl Physics II	4	MA 233 Calculus III	4
Fine Arts Elective	3	PHY 211 Genl Physics II	4
Electives	3	Electives	7
<b>FOURTH SEMESTER</b>			
ENG 313 Composition/Lit II	3	FOURTH SEMESTER	
PHY 212 Genl Physics III	4	ED 202 Sec Pre-Prof Exper	2
PHY 311 Modern Physics I	3	PHY 212 Genl Physics III	4
Electives	6	PHY 311 Modern Physics I	3
Electives	9	Electives	
<b>FIFTH SEMESTER</b>			
PHY 312 Modern Physics II	3	FIFTH SEMESTER	
PHY 315 Exper Physics I	3	ED 313 Tchg Sci Sec Sch	3
Physics Elective (300/400 level)	3	ENG 313 Composition/Lit II	3
Electives	6	PHY 315 Exper Physics I	3
Electives	6	Electives	6
<b>SIXTH SEMESTER</b>			
PHY 316 Exper Physics II	3	SIXTH SEMESTER	
MA 311 Differential Equations I	3	ED 301 Evaluative Tech	2
Physics Elective (300/400 level)	3	ED 302 Instructional Tech	2
Electives	7	PHY 316 Exper Physics II	3
Electives	7	SPE 360 Exceptional Children	3
Electives	3	Electives	3
<b>SEVENTH SEMESTER</b>			
Physics Electives (300/400 level)	6	SEVENTH SEMESTER	
Electives	10	ED 310 Basic Reading Pract	3
Electives	10	ED 410 Hist & Current Issues	3
Electives	6	PSY 321 Adolescent Psych	3
Electives	10	Physics Elective (300/400 level)	3
Electives	6	Electives	6
<b>EIGHTH SEMESTER</b>			
Physics Electives (300/400 level)	6	EIGHTH SEMESTER	
Electives	10	ED 400 Student Teaching	12

Degree: Bachelor of Science  
 Major: Physics  
 Department: Physics  
 Chairperson: Mr. Michael Vayansky  
 Location: Grant Science Center  
 Phone: (717) 662-4752

## PHYSICS

Degree: BSE, Physics

## PHYSICS (7-12)

FIRST SEMESTER		SH
ED 101 Intro to Education	1	
ENG 112 Composition I	3	
MA 231 Calculus I	4	
PSY 101 Intro to Psychology	3	
Electives	3	
Fine Arts Elective	3	
SECOND SEMESTER		
COM 101 Oral Communication	3	
HST 201 OR 202	3	

Degree: Bachelor of Science in Education  
 Major: Physics  
 Departments: Education  
 Physics  
 Chairpersons: Dr. Robert C. Putt  
 Mr. Michael Vayansky  
 Locations: Retan Center  
 Grant Science Center  
 Phones: (717) 662-4562 (717) 662-4752

## POLITICAL SCIENCE

Degree: BA, Political Science

This program provides a general background in American politics, comparative politics, international relations, public administration, and political theory. Some courses include political parties and interest groups, political leadership, state and local politics, policy formation and implementation, constitutional law, and government and business in society, among others. With close advisement, courses may

be selected in preparation for graduate school in several fields, including law, public administration, urban affairs, and journalism.

Some careers: Local, state and federal government agencies.

### POLITICAL SCIENCE

FIRST SEMESTER	SH
COM 101 Oral Communication	3
ENG 112 Composition I	3
PSC 101 American Politics	3
General Ed Electives	6
 SECOND SEMESTER	
PSC 210 World Politics	3
PSC 220 Public Policy	3
Fine Arts Elective	3
General Ed Electives	6
 THIRD SEMESTER	
Political Science Electives	6
General Ed Electives	9
 FOURTH, FIFTH, SIXTH, SEVENTH, EIGHTH SEMESTERS	
ENG 313 Composition/Lit II	3
PSC 220 Public Policy	3
PSC 235 Scope and Methods	3
PSC (American) Electives	3
PSC (International/Compar) Electives	3
PSC (Public Adm/Pub Affrs) Electives	3
PSC (Theory-Analysis) Electives	3
Political Science Electives	12
Free Electives	
General Ed Electives	12

Degree: Bachelor of Arts  
 Major: Political Science  
 Department: Politics & Economics  
 Chairperson: Dr. Albert Dalmolen  
 Contact: Dr. Albert Dalmolen  
 Location: Pinecrest Manor  
 Phone: (717) 662-4762

### PRE-ENGINEERING

Degree: BS, Physics

This unique program consists of three years at MU and two years at one of our cooperating universities: Pennsylvania State University, University of Pittsburgh, University of Rochester, George Washington University, and Georgia Institute of Technology.

The first three years at M.U. provides a firm foundation in mathematics and physics. During the following two years the cooperating university concentrates on specialized courses in the engineering field of the students choice. Completion of this five year program culminates in a BS Physics degree from MU and an engineering degree from the cooperating university.

Some careers: Aerospace, chemical, electrical and mechanical engineering careers are just a few of the many fields open to graduates. Because our five-year program provides a greater mathematics and physics background than many other universities, students are extremely competitive in the marketplace.

### PRE-ENGINEERING PHYSICS

FIRST SEMESTER	SH
CHM 111 General Chemistry I	4
ECO 101 Prin of Macroecon	3
ENG 112 Composition I	3
MA 231 Calculus I	4
Electives	4
 SECOND SEMESTER	
CHM 112 General Chemistry II	4
COM 101 Oral Communication	3
MA 232 Calculus II	4
PHY 188 General Physics I	4
Electives	3
 THIRD SEMESTER	
MA 180 Programming for Math Sci	3
MA 233 Calculus III	4
PHY 211 General Physics II	4
Fine Arts Elective	3
Electives	3
 FOURTH SEMESTER	
MA 280 Linear Alg & Matrix Thry	3
PHY 212 General Physics III	4
PHY 311 Modern Physics I	3
Electives	6
 FIFTH SEMESTER	
ENG 313 Composition/Lit II	3
MA 311 Diffrentl Equations I	3
PHY 312 Modern Physics II	3
PHY 313 Physical Mechanics I	3
PHY 315 Experimental Physics I	3
Elective	3
 SIXTH SEMESTER	
MA 312 Diffrentl Equations II	3
PHY 316 Experimental Physics II	3
Physics Electives	6
 SEVENTH SEMESTER	
 EIGHTH SEMESTER	
Degree: Bachelor of Science	
Major: Physics	
Department: Physics	
Chairperson: Mr. Michael Vayansky	
Location: Grant Science Center	
Phone: (717) 662-4752	

**PRELAW**

Degree: BA or BS

To pursue a program of studies in preparation for law school students have several suitable baccalaureate degree programs from which to choose. These programs include, but are not limited to, political science, history, English, philosophy, and criminal justice administration. Pre-Law students are expected to pursue studies which provide substantial work in critical thinking, reading, writing, speaking, and research. Philosophy faculty act as advisers for this program until a degree program is selected. The intent of the program of study is to prepare students for the LSAT and entrance requirements for the particular law school they wish to enter. Thus, academic advising is tailored to individual needs while assuring completion of program requirements.

Some careers: Placement in law school.

Degree: Bachelor of Arts
Bachelor of Science
Major: Selected Program
Department: Philosophy
Chairperson: Dr. Stephen Bickham
Location: South Hall
Phone: (717) 662-4752

**PRE-MED**

Degree: BA or BS

While this is not a formal program, advisors work closely with students in selecting background courses in English, biology, chemistry, mathematics, philosophy, and other appropriate courses to insure solid preparation for medical school. Students may, depending on area of interest, earn a degree in one of many areas such as, English, biology, philosophy, and physics.

Some careers: Placement in medical school.

Degree: Bachelor of Arts or
Bachelor of Science
Major: Selected Area
Department: Biology
Chairperson: Dr. David C. Flesch
Location: Grant Science
Phone: (717) 662-4530

**PSYCHOLOGY**

Degree: BS, Psychology

Psychology is a rapidly changing field that offers important insights about behavior and thinking. Our department includes specialists in many areas of psychology--developmental, social, physiological, clinical, cognitive, and behavioral perspectives are all represented. All students take a core of fundamental psychology courses. Those who wish to undertake research or go on for graduate study in clinical, counseling, experimental, or other areas of psychology, will select additional courses with a research component. Others seeking more immediate career options in human services or other fields will select applied courses such as our counseling sequence. Faculty encourage stu-

dents to collaborate on various projects and to present their studies at an annual department research meeting. The department provides a supportive and lively setting for its students and offers a rich variety of courses from which to choose.

Some careers: Entry level positions in human services or business and industry. Graduate study for professional psychology, counseling, or one of the many other specialized areas of psychology.

**PSYCHOLOGY**

	SH
<b>FIRST SEMESTER</b>	
COM 101 Oral Communication	3
ENG 112 Composition I	3
PSY 101 Intro to Psychology	3
PSY 151 Intro to Appl of Psy	1
General Ed Electives	5
<b>SECOND SEMESTER</b>	
BIO 101 Man & BIO World	4
MA 125 Intro to Stats	3
PSY 290 Life Span Devl	3
General Ed Electives	7
<b>THIRD SEMESTER</b>	
PSY 201 Tests & Measurements	3
Psychology Elective	3
Fine Arts Elective	3
General Ed Electives	6-9
<b>FOURTH SEMESTER</b>	
PSY 202 or 250	
PSY 291, 310 OR 430	3
General Ed Electives	9-12
<b>FIFTH SEMESTER</b>	
ENG 313 Composition/Lit II	3
PSY 300 Helping Skills	3
Electives	9-12
<b>SIXTH SEMESTER</b>	
PSY 301 Theories of Counseling	3
Electives	12-15
<b>SEVENTH SEMESTER</b>	
PSY 490 Senior Seminar	3
PSY 350&350L, 351&351L OR 460&460L	4
Psychology Elective	3
Electives	6-9
<b>EIGHTH SEMESTER</b>	
PSY 495, 496 OR 497	3-15
Electives	0-15

Degree: Bachelor of Science
Major: Psychology
Chairperson: Dr. Peter Keller
Location: South Hall
Phone: (717) 662-4771

## PROGRAMS

### PUBLIC RELATIONS

Degree: BS, Mass Communication

This program is excellent preparation for entry level positions in one of the dozens of public relations areas. Core courses include, Intro to Mass Media, Public Speaking, Intro to Public Relations, Public Relations Workshop, Communication Theory, Persuasion, and Media Design, among others. Students are involved in group projects in promotion, marketing, and other "real" experience situations. Taking a foreign language can also enhance competitiveness in the marketplace.

### PUBLIC RELATIONS

#### FIRST SEMESTER

COM 101 Oral Communication	3	SH
ENG 112 Composition I	3	
Fine Arts Elective	3	
General Ed Electives	3-6	

#### SECOND SEMESTER

COM 201 Intro to Mass Media	3	
COM 210 Intro Public Relations	3	
JN 100 Journalism	3	
General Ed Electives	2-5	
Major/Related Electives	3	

#### THIRD SEMESTER

COM 203 Voice & Articulation	3	
COM 204 Public Speaking	3	
General Ed Electives	2-5	
Major/Related Electives	3	

#### FOURTH SEMESTER

COM 320 Adv Public Relations	3	
COM 340 Professional Issues	3	
General Ed Electives	3-6	
Major/Related Electives	6	

#### FIFTH SEMESTER

COM 401 Persuasion	3	
ENG 313 Composition/Lit II	3	
General Ed Electives	3-6	
Major/Related Electives	6	

#### SIXTH SEMESTER

COM 400 Communication Theory	3	
COM 420 Public Relations Wkshp	3	
COM 440 Communication Law	3	
General Ed Electives	3	
Major/Related Electives	6	

#### SEVENTH SEMESTER

Internship OR	6-15	
Electives	15-18	

#### EIGHTH SEMESTER

Internship OR	6-15	
Electives	12-15	

Degree: Bachelor of Science

Major: Mass Communication

Emphasis: Public Relations

Department: Communication & Theater

Chairperson: Mr. Michael D. Leiboff

Location: South Hall

Phone: (717) 662-4786

### RADIOLOGY TECHNOLOGY

Degree: AAS, Radiology Technology

This is a two-year, joint program with Mansfield University and the Robert Packer Hospital in Sayre, Pa. It includes course work at MU and clinical training at Robert Packer Hospital. Courses include anatomy and physiology, physics, and several in radiology technology among others. Successful completion of this program prepares graduates for the radiology technology certification examination.

Some careers: Placement rate has been 100% in recent years.

### RADIOLOGY TECHNOLOGY

#### FIRST SEMESTER (Fall - Mansfield)

BIO 121 Human Anat & Phys I	4	SH
ENG 112 Composition I	3	
MA 125, 165, 170 OR 231	3	
XRT 101 X-Ray Technology I	3	
Electives	3	

#### SECOND SEMESTER (Spring - Sayre)

BIO 122 Human Anat & Phys II	4	
COM 101 Oral Communication	3	
PHY 165 Physics for Allied Health	3	
XRT 102 X-Ray Technology II	3	
XRT 301 Clinical Practicum I	2	

#### SUMMER SESSION (Sayre)

XRT 103 X-Ray Technology III	5	
XRT 302 Clinical Practicum II	2	

#### THIRD SEMESTER (Fall - Sayre)

PSY 101 Intro to Psychology	3	
SOC 101 Intro to Sociology	3	
XRT 104 X-Ray Technology IV	3	
XRT 203 X-Ray Physics	3	
XRT 303 Clinical Practicum III	2	

#### FOURTH SEMESTER (Spring - Sayre)

BUS 230 Management Principles	3	
CIS 103 Intro Microcomputers	3	
XRT 105 X-Ray Technology V	3	
XRT 304 Clinical Practicum IV	3	
SUMMER SESSION (Sayre)		
XRT 106 X-Ray Technology VI	4	
XRT 305 Clinical Practicum V	2	

Degree: Associate in Applied Science  
 Major: Radiology Technology  
 Department: Robert Packer Health Science  
 Program Director: Mr. Terry Lutz  
 Location: Home Economics Center  
 Phone: (717) 882-4007

## REGIONAL PLANNING

Degree: BS, Geography

With such concerns as ecology, land use, development, and the population shift from the Northeast to the Sunbelt, planning is recognized as an increasingly important profession. An internship at a planning agency is required for this program. According to the Department of Labor, employment growth in urban and regional planning will be better than average through the 1990's and offers competitive starting salaries.

Some careers: City, county, or regional planning agencies, public development corporations, river basin commissions, and state and federal agencies. With some experience graduates may also join a private planning consulting firm.

## REGIONAL PLANNING

FIRST SEMESTER	SH
COM 101 Oral Communication	3
GEG 101 World Regional Geog	3
GEG 102 Human Geography	3
Fine Arts Elective	3
General Ed Electives	3

SECOND SEMESTER	SH
ENG 112 Composition I	3
RPL 102 Intro Regional Plng	3
General Ed Electives	9

THIRD SEMESTER	SH
GEG 111 Physical Geog	3
GEG 320 Cartography	4
General Ed Electives	9

FOURTH SEMESTER	SH
GEG 222 Environmental Issues	3
GEG 360 Economic Geography	3
RPL 342 Land Use Policy	3
General Ed Electives	9

FIFTH SEMESTER	SH
ENG 313 Composition/Lit II	3
GEG 364 Tech of Geog Measurmnt	3
Free Electives	3
General Ed Electives	9

SIXTH SEMESTER	SH
GEG 300 Geographic Research	3
GEG 350 Urban Geography	3

GEG 430 Modern Cartography	3
Electives	3
<b>SEVENTH SEMESTER</b>	
GEG 375 Geographic Information Systems	3
RPL 494 Planning Seminar	3
Electives	9

<b>EIGHTH SEMESTER</b>	
RPL 496 Internship	12

Degree: Bachelor of Science  
 Major: Geography  
 Emphasis: Regional Planning  
 Department: Geography & Geology  
 Chairperson: Dr. Russell Dodson  
 Location: Belknap Hall  
 Phone: (717) 662-4614

## RESPIRATORY THERAPY

Degree: AAS, Respiratory Therapy

This is a two-year, joint program with Mansfield University and the Robert Packer Hospital in Sayre, PA. It includes intensive course work at MU and clinical training at Robert Packer and other hospitals.

Courses include a four-semester sequence of Respiratory Therapy; Pulmonary Physiology, Pulmonary Disease, and Pharmacology, among others. This is a limited enrollment, highly competitive program. Graduates of this program are qualified to sit for the respiratory therapist certification examination.

Some careers: Placement rate has been 100% in recent years.

## RESPIRATORY THERAPY

FIRST SEMESTER (Fall - Mansfield)	SH
BIO 121 Human Anat & Phys I	4
CHM 101 Intro to Chemistry	4
ENG 112 Composition I	3
MA 125, 165, 170 or 231	
RTH 101 Respiratory Therapy I	3

SECOND SEMESTER (Spring - Sayre)	SH
BIO 122 Human Anat & Phys II	4
COM 101 Oral Communication	3
RTH 102 Respiratory Therapy II	4
RTH 107 Clinical Practicum I	1
RTH 201 Pulmonary Physiology	3
RTH 206 Intro to Disease	2

SUMMER SESSION (Sayre)	SH
RTH 108 Clinical Practicum II	3

THIRD SEMESTER (Fall - Sayre)	SH
PSY 101 Intro to Psychology	3
RTH 103 Respiratory Therapy III	4
RTH 109 Clinical Practicum III	2
RTH 207 Pulmonary Disease	2

RTH 208 Perinatal/Pediatric	
Respiratory Care	2
SOC 101 Intro to Sociology	3
<b>FOURTH SEMESTER (Spring - Sayre)</b>	
BUS 230 Management Principles	3
CIS 103 Intro Microcomputers	3
RTH 104 Respiratory Therapy IV	3
RTH 110 Clinical Practicum IV	3
RTH 204 Pharmacology	2

Degree: Associate in Applied Science  
 Major: Respiratory Therapy  
 Department: Robert Packer Health Science  
 Program Director: Mr. Larry Vosburgh  
 Location: Home Economics Center  
 Phone: (717) 662-4529 or (717) 882-4513

#### **SOCIAL STUDIES COMPREHENSIVE**

Degree: BSE, Social Studies Comprehensive

#### **SOCIAL STUDIES COMPREHENSIVE (7-12)**

FIRST SEMESTER	SH
ENG 112 Composition I	3
HST 101 Western Civ I	3
PSY 101 Intro to Psychology	3
Fine Arts Elective	3
General Ed Electives	
<b>SECOND SEMESTER</b>	
COM 101 Intro to Communications	3
ED 101 Intro to Educ	1
HST 102 Western Civ II	3
Anthropology Elective (Gen Ed)	3
General Ed Electives	
Major Emphasis Electives	3
<b>THIRD SEMESTER</b>	
ED 202 Sec Ed Pre-Prof Exper	2
HST 201 Amer thru Civil War	3
SPE 360 Excptnl Chldrn in Reg Class	3
Economics Elective (Gen Ed)	3
General Ed Electives	
Major Emphasis Electives	3
<b>FOURTH SEMESTER</b>	
ED/PSY 305 Educ Psychology	3
HST 202 Amer Recon to Present	3
20th Century U.S. OR SOC 101	3
Third World Area Studies	6

FIFTH SEMESTER	
ED 302 Instructional Tech	2
ENG 313 Composition/Lit II	3
PSY 321 Adolescent Psych	3
Geography Elective (Gen Ed)	3
Major Emphasis Electives	3

<b>SIXTH SEMESTER</b>	
ED 301 Evaluative Tech	2
ED 310 Basic Reading Pract	3
General Ed Electives	
Major Emphasis Electives	3

<b>SEVENTH SEMESTER</b>	
ED 315 Tchg SOC Stds in Sec Sch	3
ED 410 Hist & Current Iss Ed	3
General Ed Electives	
Major Emphasis Electives	3
Political Sci Elective (Gen Ed)	3

<b>EIGHTH SEMESTER</b>	
ED 400 Student Teaching	12

**MUST CHOOSE A MAJOR EMPHASIS FROM:**  
 Economics, Geography, History, Political Science,  
 Psychology, or Sociology/Anthropology

Degree: Bachelor of Science in Education  
 Major: Social Studies Comprehensive  
 Departments: Education  
 Emphasis Chairperson: Dr. Robert C. Putt  
 Locations: Retan Center  
 Phones: (717) 662-4562

#### **SOCIAL WORK**

Degree: BSW, Social Work

This nationally-accredited program prepares students to work not only with inner city problems, but also examines the social problems in American suburbs, small towns, and rural regions.

The Social Work program prepares social work generalists for beginning social work practice and is accredited by the Council on Social Work Education at the baccalaureate degree level. Courses include: Sociological Perspectives, Organizational Behavior, Human Behavior and the Social Environment, American Family Systems, Social Work Techniques, and Social Research, among others. In addition to a variety of internships, field placements are available in Zimbabwe and Australia.

Some careers: Positions in mental health/mental retardation, drug and alcohol, children and youth services, various aging programs, and hospitals. Because of being nationally accredited, many courses taken at MU are accepted as graduate courses which means a master's program can be completed in one year. Job placement has been nearly 100% in recent years.

#### **SOCIAL WORK**

<b>FIRST SEMESTER</b>	SH
BIO 101 Man & BIO World	4
ENG 112 Composition I	3
SOC 101 Intro to Sociology	3
SWK 257 Program Orientation	1
<b>SECOND SEMESTER</b>	

ANH 101 Cultural Anthropology	3	Some careers: Commercial advertising analysis, analysis for political organizations, survey research, and applied human relations in industry and personnel work. Other options are graduate school, law school, and the ministry.
COM 101 Oral Communication	3	
PSY 101 Intro to Psychology	3	
SOC 121 Contemp Social Problems	3	
SWK 258 Professional Responsibilities	1	
<b>THIRD SEMESTER</b>		
SOC 232 American Family Systems	3	
SOC 301 Organizational Behavior	3	
SWK 259 Current Professional Issues	1	
Fine Arts Elective	3	
<b>FOURTH SEMESTER</b>		
ENG 313 Composition/Lit II	3	
PSC 220 Public Policy	3	
SWK 241 Intro to SOC Work	3	
<b>FIFTH SEMESTER</b>		
SOC 307 Social Research I	3	
SWK 200 Human Behav&SOC Environment	3	
SWK 315 Evolution of SOC Welfare in Am	3	
<b>SIXTH SEMESTER</b>		
SWK 308 Evaluation Research	3	
SWK 350 SWK Mtds:Small Groups	3	
SWK 351 SWK Mtds:Organizations	3	
<b>SEVENTH SEMESTER</b>		
SWK 352 SWK Mtds:Families	3	
SWK 353 SWK Mthds:Individuals	3	
<b>EIGHTH SEMESTER</b>		
SWK 452 Field Placement	12	
SWK 453 Senior Seminar	3	
<b>FIRST SEMESTER</b>		
ANH 101 Cultural Anthro	3	
ENG 112 Composition I	3	
SOC 101 Intro to Sociology	3	
General Ed Electives	8	
<b>SECOND SEMESTER</b>		
COM 101 Oral Communication	3	
Fine Arts Elective	3	
General Ed Electives	7	
Electives	3	
<b>THIRD SEMESTER</b>		
PSY 101 Intro to Psychology	3	
ANH 301 OR 304	3	
Soc/Anth Electives	6	
General Ed Electives	6	
<b>FOURTH SEMESTER</b>		
ENG 313 Composition/Lit II	3	
PSY 310 Social Psychology	3	
General Ed Electives	6	
Electives	3	
<b>FIFTH SEMESTER</b>		
SOC 307 Social Research I	3	
General Ed Electives	9	
<b>SIXTH SEMESTER</b>		
ANH 310 Anthro Field Methods	3	
SOC 308 Social Research II	3	
SOC 412 OR 421	3	
Elective	3	
<b>SEVENTH SEMESTER</b>		
SOC 410 Soc/Anth Theory	3	
General Ed Electives	3	
Soc/Anth Electives	6	
Electives	6	
<b>EIGHTH SEMESTER</b>		
General Ed Electives	3	
Soc/Anth Elective	3	
Electives	9	

Degree: Bachelor of Social Work  
 Major: Social Work  
 Department: Social Work, Anthropology & Sociology  
 Chairperson: Dr. Gale Largey  
 Program Director: Dr. Laurance Miller  
 Location: Pinecrest Manor  
 Phone: (717) 662-4489

### SOCIOLOGY/ANTHROPOLOGY

Degree: BA, Sociology/Anthropology

Sociology is the study of human behavior in complex societies such as our own. Anthropology studies human behavior in societies in other parts of the world and compares behavior cross-culturally.

This program can be tailored to match individual interests and career goals. It is a liberal arts degree which can easily be combined with minors in other disciplines. Courses include: Cultural Anthropology, Human Evolution, Native Americans, African Cultures, Sociology, African Cultures, Sociology, Social Research, Sociology of Religion, and Futuristic Society.

Degree: Bachelor of Arts  
 Major: Sociology/Anthropology  
 Department: Social Work, Anthropology and Sociology  
 Chairperson: Dr. Gale Largey  
 Location: Pinecrest Manor  
 Phone: (717) 662-4484

**PROGRAMS****SPANISH**

Degree: BA, Spanish

**SPANISH**

FIRST SEMESTER	SH
COM 101 Oral Communication	3
ENG 112 Composition I	3
SPA 201 Interm Spanish I	3
Fine Arts Elective	3
General Ed Elective	3
SECOND SEMESTER	
SPA 202 Interm Spanish II	3
SPA 205 Phonetics & Pronun	1
General Ed Electives	9
Electives	3
THIRD SEMESTER	
Free Electives	6-7
General Ed Electives	9
FOURTH SEMESTER	
SPA 305 Span Conversation & Comp	3
General Ed Electives	12-13
FIFTH SEMESTER	
ENG 313 Composition/Lit II	3
SPA 320 Adv Structure	3
Spanish Electives	3
General Ed OR Free Electives	6-7
SIXTH SEMESTER	
SPA 330 OR 331	3
Spanish Electives	3
General Ed OR Free Electives	9-12
SEVENTH SEMESTER	
Spanish Electives	6
General Ed OR Free Electives	9-12
EIGHTH SEMESTER	
SPA 340 OR 341	3
Spanish Electives	3
General Ed OR Free Electives	9-12

Degree: Bachelor of Arts  
Major: Spanish  
Department: Foreign Language  
Chairperson: Mr. Bernard Clark  
Location: Belknap Hall  
Phone: (717)662-4603

**SPANISH**

Degree: BSE, Spanish

**SPANISH (K-12)**

FIRST SEMESTER	SH
COM 101 Oral Communication	3
ED 101 Intro to Educ	1
ENG 112 Composition I	3

HST 201 OR 202	3
SPA 201 Interm Spanish I	3
Fine Arts Elective	3

SECOND SEMESTER	
ED 202 Sec Pre-Prof Exper	2
SPA 202 Interm Spanish II	3
SPA 205 Phonetics & Pronun	1
General Ed Electives	3

THIRD SEMESTER	
ED 302 Instructional Tech	2
PSY 101 Intro to Psychology	3
SPA 320 Adv Span Structure	3
General Ed Electives	3
Spanish Electives	3

FOURTH SEMESTER	
ED/PSY 305 Educational Psych	3
SPA 305 Span Conversation & Comp	3
General Ed Electives	9

FIFTH SEMESTER	
ED 301 Evaluative Tech	2
ENG 313 Composition/Lit II	3
PSY 321 Adolescent Psych	3
SPA 306 Culture & Civ Spain	3
SPA 330 OR 331	3
General Ed Electives	3

SIXTH SEMESTER	
ED 310 Basic Reading Pract	3
ED 410 Hist & Current Issues	3
SPA 307 Culture & Civ Latin Am	3
SPA 340 OR 341	3
Electives	3-6

SEVENTH SEMESTER	
ED 300 Sec School Methods	3
SPE 360 Exceptional Children	3
Electives	6
Spanish Electives	6

EIGHTH SEMESTER	
ED 400 Student Teaching	12

Degree: Bachelor of Science in Education  
Major: Spanish  
Departments: Education  
Foreign Languages  
Chairpersons: Dr. Robert C. Putt  
Mr. Bernard K. Clark  
Locations: Retan Center & Belknap Hall  
Phones: (717) 662-4562 (717) 662-4603

**SPECIAL EDUCATION**

Degree: BSE, Special Education

There is great demand for Mansfield University Special Education graduates. The Mentally and Physically Handicapped program culminates in K-12 certification which

signifies entry-level qualifications to teach children who experience brain injury, learning disabilities, mental retardation, physical disabilities, or behavioral disturbance. Courses include: mentally/physically disabled, teaching individuals with behavioral problems, communication disorders, assessment processes, child development, behavior modification, and student teaching, among others.

Some careers: Special class teacher, resource room teacher, itinerant specialist, collaborative teacher, instructional support teacher, and home instruction teachers, among others. Positions are also available in community and residential facilities and agencies serving the disabled. Placement in this program has been 100%.

#### SPECIAL EDUCATION (K-12)

FIRST SEMESTER	SH
COM 101 Oral Communication	3
PSY 101 Intro to Psychology	3
SPE 101 Exceptional Persons	3
Fine Arts Elective	3
General Ed Elective	3
SECOND SEMESTER	
ENG 112 Composition I	3
SPE 201 Mntl/Physical Disabled	3
General Ed Electives	7
Science Elective (Gen Ed)	3
THIRD SEMESTER	
ED/PSY 305 Educational Psy	3
SPE 301 Curric Dev & Adjust	3
General Ed Electives	4
Science Elective (Gen Ed)	3
Elective	3
FOURTH SEMESTER	
SPE 302 Assessment	3
SPE 330 Cult Diversity	3
General Ed Elective	3
Math Elective (Gen Ed)	3
Science Elective (Gen Ed)	3
Elective	3
FIFTH SEMESTER	
ED 301 Evaluative Tech	2
ELE 383 Teaching Reading	3
ELE 384 Teaching Math	3
PSY 320 Child Psychology	3
SPE 340 Chld Need/Emotnl Supt	3
SPE 345 Behavior Mgmt	3
SIXTH SEMESTER	
ENG 313 Composition/Lit II	3
SPE 303 Observ & Participation	3
SPE 404 Early Chldhd Disabilities	3
SPE 430 Technology in SpEd	3
SPE 435 Methods I	3
Major/Related Elective (300/400 level)	3

SEVENTH SEMESTER	
ED 401 Hist & Phil Educ	3
SPE 410 Professional Seminar	3
SPE 440 Methods II	3
SPE 490 Learning Disabled	3
Free Elective	3

EIGHTH SEMESTER	
SPE 400 Student Teaching	12

Degree: Bachelor of Science in Education
Major: Special Education
Department: Special Education
Chairperson: Dr. Ronald B. Straub
Location: Retan Center
Phone: (717) 662-4796

#### SPEECH COMMUNICATION

Degree: BA, Speech Communication

This program provides extensive preparation in oral communication skills. Core courses include Oral Interpretation, Voice and Articulation, Public Speaking, and Communication Theory. It also includes writing courses to help develop skills in basic journalism and written communication. With a solid foundation in the liberal arts and upper level specialized courses students will be competitive for entry level positions. It is excellent preparation for graduate school.

Some careers: Several areas of radio and TV broadcasting, sales and other related jobs. Graduate school.

#### SPEECH

FIRST SEMESTER	SH
COM 101 Oral Communication	3
ENG 112 Composition I	3
General Ed Electives	6-9

SECOND SEMESTER	
Fine Art Elective	3
General Ed Electives	11-14

THIRD SEMESTER	
COM 203 Voice & Articulation	3
COM 204 Public Speaking	3
Communication Electives	3
General Ed Electives	5-8

FOURTH SEMESTER	
COM 200 Oral Interpretation	3
Communication Electives	3
General Ed Electives	6-9

FIFTH SEMESTER	
COM 325 Interpersonal Commun	3
COM 440 Communication Law	3
ENG 313 Composition/Lit II	3
General Ed Electives	6-9

## **PROGRAMS**

<b>SIXTH SEMESTER</b>	
COM 360 Organizational Commun	3
COM 400 Communication Theory	3
Communication Electives	3
General Ed Electives	6-9

<b>SEVENTH SEMESTER</b>	
COM 401 Persuasion	3
Internship OR	6-15
General Ed Electives	12-15

<b>EIGHTH SEMESTER</b>	
Internship OR	6-15
Electives	12-18

Degree: Bachelor of Arts  
 Major: Speech Communication  
 Department: Communication & Theater  
 Chairperson: Mr. Michael D. Leiboff  
 Location: South Hall  
 Phone: (717) 662-4786

## **STUDIO ART**

### **Degree: BS, Studio Art**

If you want to be a practicing artist, this program is designed for you. Hands-on experiences are provided in several media, including concentrations in advertising art, drawing, painting, printmaking, ceramics, jewelry, sculpture, fibers, and crafts. These courses are balanced with academic art and general liberal arts courses. Students will have opportunities to display their works on and off campus. With selective courses in computers, business, or the sciences students can further multiply their career options.

Some careers: From freelance artist to working for a design firm. Large and small companies, and government agencies employ artist designers. The growing field of video utilizes artists. Other careers range from medical, scientific, and other types of technical illustration.

## **STUDIO ART**

<b>FIRST SEMESTER</b>	
ARH 102 Survey of Art	SH
ART 210 Drawing	3
ART 241 Color & Design	3
ENG 112 Composition I	3
Electives	3-6

<b>SECOND SEMESTER</b>	
ARH 225 Hist Modern Art	3
ART 201 Painting	3
ART 295 Crafts	3
Fine Arts Elective	3
Electives	3-6

<b>THIRD SEMESTER</b>	
ART 261 Waterbase Media	3
ART 271 Ceramics	3

<b>ART History Electives</b>	3
COM 101 Communication	3
PSY 101 Intro to Psychology	3
Electives	3

<b>FOURTH SEMESTER</b>	
ART 231 Printmaking	3
ART 281 Sculpture	3
ART History Electives	3
Elective	3-6

<b>FIFTH SEMESTER</b>	
ART 251 Jewelry	3
ART 300 Visual Studies	3
ART 345 Fibers	3
ENG 313 Composition/Lit II	3
Electives	3-6

<b>SIXTH SEMESTER</b>	
ART Area of Concentration	6
ART History Electives	3
Electives	3-6

<b>SEVENTH SEMESTER</b>	
ART Area of Concentration	6

<b>EIGHTH SEMESTER</b>	
ART Area of Concentration	6

Degree: Bachelor of Science  
 Major: Studio Art  
 Department: Art  
 Chairperson: Dr. James Cecere  
 Location: Allen Hall  
 Phone: (717) 662-4502

## **THEATRE ARTS MANAGEMENT**

### **Degree: BS, Mass Communication**

Fine arts management is a dynamic and growing field. It is a challenging profession, but one that offers the best of both worlds. You will be part of the excitement of the arts while helping to manage it. The core program includes courses in accounting, business and management, marketing, mass media, voice and articulation, public relations, journalism, media design, stagecraft, and theatre and stage management. Graduates with the training provided in this program are becoming very important in the arts. More and more performing and theatre arts organizations are relying upon professionals with background in the fine arts, management, and public relations because of the growing interaction with the public, business, special interest groups, and state and national agencies.

## **THEATRE ARTS MANAGEMENT**

<b>FIRST SEMESTER</b>	SH
COM 101 Oral Communication	3
COM 201 Intro to Mass Media	3

ENG 112 Composition I	3
THT 110 Intro to Theatre	3
General Ed Electives	0-6
<b>SECOND SEMESTER</b>	
JN 100 Journalism	3
Tht 212 Funds of Acting I	3
Fine Arts Elective	3
General Ed Electives	3-9
<b>THIRD SEMESTER</b>	
BUS 130 Intro Bus & Mgmt	3
COM 210 Intro to Public Relations	3
Tht 210 Stagecraft	3
Related Elective	3
General Ed Electives	3-9
<b>FOURTH SEMESTER</b>	
ACC 110 Prin of Accounting I	3
COM 340 Professional Issues	3
General Ed Electives	6-12
Related Electives	6
<b>FIFTH SEMESTER</b>	
Tht 316 Thtr & Stage Mgmt	3
Related Electives	9
<b>SIXTH SEMESTER</b>	
COM 400 Communication Theory	3
ENG 313 Composition/Lit II	3
Tht 314 Play Production Pract	3
General Ed Electives	3-9
<b>SEVENTH SEMESTER</b>	
COM 440 Communication Law	3
Internship OR	6-15
Electives	9-15
<b>EIGHTH SEMESTER</b>	
Internship OR	6-15
Electives	12-18

Degree: Bachelor of Science  
 Major: Mass Communication  
 Emphasis: Theatre Arts Management  
 Department: Communication & Theatre  
 Chairperson: Mr. Michael D. Leiboff  
 Location: South Hall, 306  
 Phone: (717) 662-4786

and tourism internship provides an opportunity for practical tourism industry experience as well. Travel and tourism will soon be the world's largest industry.

Some careers: There is almost no limit to career possibilities depending on a graduates interests and energy. Opportunities include work as a planner in a small city, tourism promoter, international or domestic travel and tourism agency, meeting convention and special events planner and manager, destination marketer, hotel sales and marketing, cruise consultant, or tourism operations and management. Tour operators for airlines, railroads, hotel chains, and tourist areas.

#### BUS ADM:TRAVEL AND TOURISM

<b>FIRST SEMESTER</b>	SH
COM 101 Oral Communication	3
TRT 102 Intro Travel & Tourism	3
Foreign Language	3
General Ed Electives	6
<b>SECOND SEMESTER</b>	
ENG 112 Composition I	3
Fine Arts Elective	3
Foreign Language	3
General Ed Electives	9
<b>THIRD SEMESTER</b>	
ACC 110 Prin of Accounting I	3
BUS 160 Small Business Mgmt	3
TRT 320 North Amer Destination	3
Foreign Language	3
General Ed Electives	3
<b>FOURTH SEMESTER</b>	
ACC 111 Prin of Accounting II	3
TRT 321 World-Wide Destination	3
Foreign Language	3
General Ed Electives	9
<b>FIFTH SEMESTER</b>	
BUS 410 Business Law I	3
CIS 103 Intro Microcomputers	3
TRT 300 The Travel/Consumer	3
Foreign Language	3
General Ed Electives	3
<b>SIXTH SEMESTER</b>	
BUS 230 Management Principles	3
ENG 313 Composition/Lit II	3
MA 125 Intro to Stats	3
TRT 312 Intrn'l Tourism	3
General Ed Electives	3
<b>SEVENTH SEMESTER</b>	
BUS 330 Marketing	3
TRT 322 Trav&Tour Site Development	3
TRT 430 Tour Suppliers&Wholesalers	3
TRT 460 Passenger Transportation	3
Electives	3

#### TRAVEL AND TOURISM

Degree: BS, Business Adm:Travel & Tourism

This program is the only one of its kind in the state and one of the few in the country. This fast-growing program combines courses in management, business administration, human and physical geography, foreign language, and travel and tourism. It is excellent preparation for executive track careers in this large and diverse industry. The travel

## **PROGRAMS**

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### **EIGHTH SEMESTER**

BUS 332 Promotion & Marketing	3
BUS 370 Salesmanship	3
TRT 410 Topical Seminar Trav&Tour	3
TRT 480 Contemp Issues Trav&Tour	3
Electives	6

Degree: Bachelor of Science  
Major: Bus Adm:Travel & Tourism  
Department: Business Administration  
Chairperson: Dr. Gopalan Kutty  
Location: Home Economics Center  
Phone: (717) 662-4516

### **UNDECLARED**

Entering students who are not ready to choose a major may be accepted as Undeclared and will be assigned an advisor selected to work especially with them. The advisor will assist in choosing courses to fulfill General Education requirements and advise them of introductory courses as a means of selecting a major. It is recommended that the undeclared student choose a major after their second semester freshman year, however, all students must declare a major by the time they have earned 64 credit hours.

Degree: None  
Major: None  
Department: Academic Advising Center  
Director: Dr. Enrico A. Serine  
Location: South Hall  
Phone: (717) 662-4824



## COURSE DESCRIPTION

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**ACC 110 PRINCIPLES OF ACCOUNTING I** 3.0 (3, 0, 0) Introduces the accounting cycle; balance sheet and income statement preparation; accounting for cash, receivables, inventory, property, plant, and equipment; current liabilities.

**ACC 111 PRINCIPLES OF ACCOUNTING II** 3.0 (3, 0, 0) A continuation of 110: long-term liabilities, owners equity of partnerships and corporations, and statement of cash flow. Introduces managerial accounting concepts, including manufacturing accounting and budgets, and financial ratio analysis.

**ACC 310 INTERMEDIATE ACCOUNTING I** 3.0 (3, 0, 0) An intensive study of accounting principles and problems of fairly presenting a financial position; measurement of assets, liabilities; preparation of financial statements. Prerequisite: ACC 111.

**ACC 311 INTERMEDIATE ACCOUNTING II** 3.0 (3, 0, 0) Further study of generally accepted accounting principles; corporate earnings per share, tax allocation, pensions, leases, inflation. Prerequisite: ACC 310.

**ACC 314 (CIS) AUTOMATED ACCOUNTING SYSTEMS** 3.0 (3, 0, 0) An introduction to the development and implementation of an accounting information system. A real commercial system will be analyzed and then used by students to process accounting case studies. Prerequisites: ACC 315 and CIS 104 or 105.

**ACC 315 MANAGERIAL ACCOUNTING** 3.0 (3, 0, 0) Examines management strategies to develop budgets and product costs and ways to control company costs and expenses. Prerequisite: ACC 111.

**ACC 320 ADVANCED ACCOUNTING I** 3.0 (3, 0, 0) Examines partnerships, accounting, corporate mergers, and consolidated financial statements; non-profit accounting, foreign currency transactions, and other topics vary. Prerequisite: ACC 311 or permission of instructor.

**ACC 350 COST ACCOUNTING I** 3.0 (3, 0, 0) Explores budget planning, product costing, break-even and variance analysis, cost behavior, and cost allocation. Prerequisite: ACC 111.

**ACC 351 COST ACCOUNTING II** 3.0 (3, 0, 0) A continuation of 350. More cost behavior, decision models, regression analysis and linear programming applications, capital budgeting, economic order quantity, and ethical considerations are examined. Prerequisite: ACC 350 or permission of instructor.

**ACC 390 INTRODUCTION TO FEDERAL TAX ACCOUNTING** 3.0 (3, 0, 0) Explores the application of the personal income tax law to the taxpayer as an individual and a business proprietor.

**ACC 400 AUDITING** 3.0 (3, 0, 0) A systematic process of objectively obtaining and evaluating evidence for the purpose of rendering an opinion and communicating the results to interested users. Prerequisite: ACC 320 or permission of instructor.

**ACC 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**ANH 101 CULTURAL ANTHROPOLOGY** 3.0 (3, 0, 0) Introduction to culture as a conceptional model and to the variations in behavior systems found among human societies. Cultural institutions are examined including the processes associated with their development and change.

**ANH 102 HUMAN ORIGINS AND EVOLUTION** 3.0 (3, 0, 0) Study of the development of man with attention on human variation. Techniques involved in the discovery, reconstruction, and the classification of man are treated. Provides an introduction to physical anthropology including prehistoric archaeology.

**ANH 250 WOMEN: A CROSS-CULTURAL VIEW** 3.0 (3, 0, 0) Follows the sociological movement of women in society from birth to death. The student will be given a broad perspective of women's traditional roles and how the changing of those roles affects both society and personal relationships. Contemporary women's issues will be viewed in the social context. Readings include case studies, literature, and sociological/anthropological studies.

**ANH 270 NATIVE NORTH AMERICANS: CONTEMPORARY ISSUES** 3.0 (3, 0, 0) Traces the distinctive and enduring Native American contemporary cultural issues from a historical perspective.

**ANH 301 WORLD CULTURES** 3.0 (3, 0, 0) Comparative study of selected major cultural areas of the world. Institutional patterns characterizing the cultural complexes of Europe and Southwest Asia, South Asia, Southeast Asia, North and South America and Africa south of the Sahara will be examined. Prerequisite: permission of instructor. Dual listed with 501.

**ANH 304 STUDIES IN MAJOR CULTURAL SYSTEMS** 3.0 (3, 0, 0) Systematic examination of the cultural system of a major society. Dominant institutional norms, values, and modes of social organization are treated as parts of an integrated system. Prerequisite: ANH 101.

**ANH 305 NATIVE NORTH AMERICANS: CULTURES** 3.0 (3, 0, 0) Provides an understanding of native cultures before contact with Europeans.

**ANH 306 RURAL BELIEF SYSTEMS LIFESTYLES** 3.0 (3, 0, 0) An investigation of rural values, beliefs, and attitudes and their relation to rural lifestyles. Emphasis is on the family farm and small city complex of Appalachia and involves reading, research, and first-hand experience. Prerequisite: ANH 101 or SOC 101.

**ANH 310 ANTHROPOLOGICAL FIELD METHODS** 3.0 (3, 0, 0) Examine qualitative field work methods of participation and unstructured interviews. The student is introduced to his/herself as actor in social situations and analyzes campus life (small segments). Prerequisite: Upper division status, ANH 101, SOC 101 and at least one other upper level anthropology or sociology course.

**ANH 350 SELECTED TOPICS SEMINAR** 0.0 (0, 0, 0) Review of a specialty area in anthropology or the study of a problem from an interdisciplinary position. Prerequisite: upper division status and permission of instructor. May be taken for one through six credits.

**ANH 405 NATIVE NORTH AMERICAN: WORLDVIEW AND ECOLOGY** 3.0 (3, 0, 0) An anthropological approach to ecology and Native American worldview to explain cultural phenomena regarding the interrelationships of humankind and the environment.

**ANH 430 FIELD STUDY** 2.0 (0, 0, 0) Supervised field observation of selected aspect of human group activities in one cultural area. Study may be a broad survey of kinship, education, religion, work and governmental patterns or an intensive study of a single institution. Prerequisite: ANH 101 or SOC 101 and/or permission of instructor. May be taken for two through eight credits.

**ANH 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**ARE 288 HISTORY AND PHILOSOPHY OF EDUCATION AND ART EDUCATION** 3.0 (3, 0, 0) Designed to acquaint the student with social, historical, and philosophical developments in education and art education.

**ARE 290 ART EDUCATION IN ELEMENTARY TEACHING** 3.0 (2, 0, 4) A pre-student teaching experience in which each student prepares lessons and teaches children of pre-school age through the fifth and sixth grades. Activities include field trips, observations, and participation in nearby public schools.

**ARE 343 ARTS AND CRAFTS IN THE SPECIAL EDUCATION CURRICULUM** 3.0 (1, 0, 3) Creative work in a variety of activities with arts and crafts materials. Particular emphasis is on the needs of special education classes.

**ARE 392 TEACHING ART IN THE ELEMENTARY GRADES** 3.0 (1, 0, 3) Examines the philosophy and principles of art education in the elementary school curriculum with experience in the development of self-expression through a variety of public school art materials and activities as a basis for understanding and evaluating children's art work.

**ARE 393 ART IN THE SECONDARY SCHOOL** 3.0 (2, 0, 4) Pre-student teaching situation based on classroom problems that occur in an actual teaching situation in the Mansfield junior/senior high school. Problems of an individual in the classroom provide a personalized approach to problems and their solutions. Emphasis is placed upon application, observation, and evaluation of teaching as related to the adolescent in the junior/senior high school. Prerequisite: ARE 290.

**ARE 394 CURRICULUM DEVELOPMENT IN ART EDUCATION** 2.0 (2, 0, 0) Investigation of the concepts, attitudes, and values of art theory and practice as related to curriculum; a study of classroom problems and procedures in various teaching situations.

**ARE 400 STUDENT TEACHING** 12.0 (0, 0, 0) (By arrangement) Provides the opportunity to apply knowledge and skills acquired in professional preparation. Accomplished by a field experience in university-established centers under supervision of qualified cooperating teachers. Observations and conferences are scheduled by the departmental supervisor. ARE 400 is required for students seeking certification to teach. Prerequisite: 2.5 QPA.

**ARE 444 ART AND RECREATION FOR THE HANDICAPPED CHILD** 6.0 (0, 0, 0) A Three-week workshop with instruction in and practical application of art and recreation for the handicapped child in connection with the Easter Seal Society of Pennsylvania. The first part is on campus for several days in a classroom situation. The second part is in an Easter Seal Society camp for the two-week session, living, working, and playing with young handicapped children 24 hours a day under the direction and supervision of both camp and university professionals.

**ARH 101 INTRODUCTION TO ART** 3.0 (3, 0, 0) An approach to the dominant movements and ideas of the Western World as they evolved in visual arts from the cave art origins to the 20th century systems.

**ARH 102 SURVEY OF ART** 3.0 (3, 0, 0) An intercultural, interdisciplinary approach to dominant movements and ideas as they evolved in visual arts. Examines philosophic commonality of purpose which becomes intertwined with man's record of history.

**ARH 220 PRIMITIVE ART** 3.0 (3, 0, 0) The study of prehistoric and primitive art from the Paleolithic period: Africa, Asia, Australia, Europe, Mexico, the Americas, and the South Seas. Prerequisite: ARH 101, 102 or permission of instructor.

**ARH 221 ANCIENT AND MEDIEVAL ART** 3.0 (3, 0, 0) Comprehensive study of architecture, sculpture, painting and minor arts from the prehistoric through the gothic period; emphasis is on aesthetic values and historical implications, iconographic, and symbolic significances. Prerequisite: ARH 101, 102 or permission of instructor.

**ARH 225 HISTORY OF MODERN ART** 3.0 (3, 0, 0) Comprehensive study of the development of Modern Art from nineteenth century Neo-Classicism through contemporary movements. Prerequisite: ARH 101, 102 or permission of instructor.

**ARH 226 ORIENTAL ART** 3.0 (3, 0, 0) Study of art in China, India, and Japan in the areas of architecture, painting, pottery, sculpture, and the minor arts. Trace influences central to the development and spread of important styles and the relationship of art to the classics of Oriental aesthetics.

**ARH 229 HISTORY OF AFRICAN-AMERICAN ART** 3.0 (3, 0, 0) Survey of early African art to contemporary African-American art, appraise the past and present performance of African-American artists and their contributions to American art history.

**ARH 230 HISTORY OF AMERICAN ART** 3.0 (3, 0, 0) Comprehensive study of the heritage of American art from the Limners and Artisans of colonial times through the 20th century in painting, architecture, and sculpture; emphasizing movements, trends, and contributions by significant artists, architects, and sculptors. Prerequisite: ARH 101, 102 or permission of instructor.

**ARH 322 ART OF THE RENAISSANCE** 3.0 (3, 0, 0) Comprehensive study of architecture, painting, and sculpture in Italy, Flanders, Holland, Germany, England, France, and Spain with emphasis on the general characteristics of the Renaissance. Prerequisite: ARH 101 or 102 or permission of instructor.

**ARH 323 BAROQUE AND ROCOCO ART** 3.0 (3, 0, 0) A comprehensive study of painting, sculpture, and architecture from

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1600 to 1750 in Italy, Flanders, Germany, Austria, Holland, Spain, France and England. Prerequisite: ARH 101, 102 or permission of instructor.

**ARH 324 NATIVE ARTS OF THE AMERICAS 3.0 (3, 0, 0)** A survey of the native arts of North, Central, and South America during the pre-Columbian and historic periods. Painting, sculpture, architecture, and crafts will be examined.

**ARH 327 HISTORY OF PRINTS 3.0 (3, 0, 0)** The history of printmaking and the significant influences of Eastern and Western cultures on the graphic processes. Prerequisite: ARH 101 or 102 or permission of instructor.

**ARH 328 HISTORY OF ARCHITECTURE 3.0 (3, 0, 0)** Study of architecture, styles, and methods of construction from the earliest civilizations to the present. Analyze the outstanding contributions in architecture of the various cultures with emphasis on further development and influences, citing important examples and their architects. Prerequisite: ARH 101 or 102 or permission of instructor.

**ARH 401 CULTURAL ORIGINS OF ART 0.0 (0, 0, 0)** A travel-study seminar abroad visiting various countries around the world. Provides intensive study of the humanities and cultures from which various art styles emerge. Lectures will be conducted throughout the tour by the director. Prerequisite: ARH 101, 102 or permission of instructor. Dual listed with 501. May be taken for one through nine credits.

**ARH 407 EMPIRES OF THE WORLD THROUGH ART 3.0 (3, 0, 0)** Explores the use of art and architecture of various empires as images of power and political statement. The Roman, Byzantine, Holy Roman, Ottoman, Russian, and British empires will be examined. Prerequisite: ARH 101, 102 or permission of instructor. Dual listed with 507.

**ARH 408 ART AND MYTHOLOGY OF ANCIENT GREECE 3.0 (3, 0, 0)** Explores the relationship between art and mythology in ancient Greece from the Bronze Age through the Classical and Hellenistic periods. Prerequisite: ARH 101, 102 or permission of instructor. Dual listed with 508.

**ARH 409 WOMEN IN ART 3.0 (3, 0, 0)** A study of the accomplishments and contributions of women in art and architecture from antiquity to the twentieth century. Women as subjects in art will also be examined with emphasis on the cultural and artistic milieu in which they are represented. Prerequisite: ARH 101, 102 or permission of instructor. Dual listed with 509.

**ARH 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**ART 201 PAINTING 3.0 (1, 0, 5)** Introduction to the methods, techniques, and approaches of the painter. Emphasis is placed on composition, application, and involvement in creative self-expression. The understanding and use of the media for solving various problems of representation is stressed. Dual listed with 511.

**ART 210 DRAWING 3.0 (1, 0, 5)** Builds those skills and attitudes necessary for the remainder of the program. Introduces the two and three dimensional aspects of drawing and devel-

ops personal power of expression. Designed to stimulate creative thinking, develop a sensitivity to the art elements, sharpen impressions and the visual memory. Dual listed with 510.

**ART 231 PRINTMAKING 3.0 (1, 0, 5)** Introduction to the printmaking processes of linocut, woodcut, lithography, serigraphy, etching, intaglio, and drypoint with emphasis on their use for creative expression. Dual listed with 514.

**ART 241 COLOR AND DESIGN 3.0 (1, 0, 5)** Introduction to design, types of harmony, sequence and balance while applying methods of design and representation through the use of various media. Emphasis is on creative use of color and basic elements of design stressing their function and relationships through discussion and assigned problems.

**ART 251 JEWELRY 3.0 (1, 0, 5)** Study of two and three dimensional design concepts with emphasis on individual solutions in the medium of metal. Both precious and common materials will be used. Traditional techniques of jewelry making will be explored. Dual listed with 516.

**ART 261 WATERBASE MEDIA 3.0 (1, 0, 5)** Explores waterbase media (transparent, gouache, acrylic polymer) with the intent of establishing a broad base of understanding needed to accomplish personal goals. Dual listed with 513.

**ART 271 CERAMICS 3.0 (1, 0, 5)** The study of hand and wheel methods of forming. Introduces the principles of glaze formulation, kiln stacking, and firing. Dual listed with 515.

**ART 281 SCULPTURE 3.0 (1, 0, 5)** Exploration of three dimensional design as related to sculpture. Basic techniques of stone and wood carving will be explored in addition to various methods of material build-ups (wood, plaster, plexiglas, metal, etc.). Dual listed with 519.

**ART 295 CRAFTS 3.0 (1, 0, 5)** Designed to prepare students to be more receptive to three dimensional media and materials. Provides the opportunity to explore various media and develop an understanding of crafts. Basic design properties of wood, paper, clay, metal, and plastics are studied. Dual listed with 512.

**ART 298 PUPPETRY 3.0 (1, 0, 5)** Devoted to the production and exploration of a variety of puppets, both traditional and contemporary. Concentrates on creative imagery to develop characterization with special emphasis on the utilization of puppets in free play, impromptu, stage, scripted productions, and special performances. Dual listed with 521.

**ART 300 VISUAL STUDIES IN AESTHETIC EXPERIENCES 3.0 (3, 0, 0)** Studies the philosophic theories of art, aesthetic experience, principles and criticism in the nature and comprehension of the character of arts; the artist and his/her relationship to life.

**ART 302 ADVANCED PAINTING 0.0 (0, 0, 0)** Direction of the course of study is determined by the student and instructor. Prerequisite: ART 201 or permission of instructor. May be taken for one through twelve credits.

**ART 311 ADVANCED DRAWING 0.0 (0, 0, 0)** The direction of the course of study is determined by the student and instructor. Prerequisite: ART 210. May be taken for one through twelve credits.

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**ART 332 ADVANCED PRINTMAKING** 0.0 (0, 0, 0) The direction of the course of study is determined by the student and instructor. Prerequisite: ART 231. May be taken for one through twelve credits.

**ART 342 ADVERTISING, DESIGN AND LETTERING** 3.0 (1, 0, 5) Introduction to advertising. A comprehensive survey of basic principles and practices in advertising, their relation to economy, society, and system of mass communication. Psychological and creative factors involved in advertising, design, campaign, media, and research are explored.

**ART 345 FIBERS** 3.0 (1, 0, 5) A creative application of the principles and elements of design and color theory to fibers and fabrics. Develops skills in textile techniques and an understanding of the functional and aesthetic possibilities of fibers and fabrics. Techniques include: weaving, hooking, rya knotting, crochet, knitting, macrame, stitchery, tie dye, batik, block print, dye painting, spinning, quilting, basketry. Dual listed with 517.

**ART 346 FIBERS WORKSHOP** 3.0 (3, 0, 0) Discuss and explore the principles of fabric construction as applied to practical uses, the functional and aesthetic uses of fibers, color, and design in textiles, and how to design specifically for textile techniques, sources for materials and equipment, including the building of simple equipment.

**ART 347 WEAVING SPINNING** 0.0 (0, 0, 0) Exploration of spinning, weaving, and basic structure of fiber and fabric starting with basic skills and advancing to drafting and weaving your own fabric. May be taken for one through three credits.

**ART 352 ADVANCED JEWELRY** 0.0 (0, 0, 0) The direction of the course of study is determined by the student and instructor. Prerequisite: ART 251. May be taken for one through twelve credits.

**ART 362 ADVANCED WATERBASE MEDIA** 0.0 (0, 0, 0) The direction of the course of study is determined by the student and instructor. Prerequisite: ART 261. May be taken for one through twelve credits.

**ART 365 COMPUTER ART** 0.0 (0, 0, 0) Introduction to the methods, techniques, and approaches of the computer for graphic application and provide an effective, workable knowledge of computer graphic design that can be applied to the area of creative expression and teaching. May be taken for one through six credits.

**ART 372 ADVANCED CERAMICS** 0.0 (0, 0, 0) Direction of the course of study is determined by the student and instructor. Prerequisite: ART 271. May be taken for one through twelve credits.

**ART 382 ADVANCED SCULPTURE** 0.0 (0, 0, 0) Direction of the course of study is determined by the student and instructor. Prerequisite: ART 281. May be taken for one through twelve credits.

**ART 396 ADVANCED CRAFTS** 0.0 (0, 0, 0) Direction of the course of study is determined by the student and instructor. Prerequisite: ART 295. May be taken for one through twelve credits.

**ART 403 SEMINAR** 1.0 (1, 0, 0) Provides art students with the opportunity to exchange ideas, enhance critical dialectic, and to participate in activities relevant to the professional artist. The activities in this course will assist the student in developing his/her portfolio and exhibition skills.

**ART 404 SPECIAL PROBLEMS IN ART** 0.0 (0, 0, 0) Designed for students interested in extending their scope or gaining depth in specific academic areas related to art and/or education. Since needs and conditions change with each student, the requirements and restrictions are determined by and arranged with the chairperson. May be taken for one through six credits.

**ART 445 ADVANCED FIBERS** 0.0 (0, 0, 0) Direction of the course of study is determined by the student and instructor. Prerequisite: ART 345. May be taken for one through twelve credits.

**ART 465 ADVANCED COMPUTER ART** 0.0 (0, 0, 0) Introduction to the methods, techniques and approaches of the computer for graphic application. To provide an effective, workable knowledge of computer graphic design that can be applied to the area of creative expression and teaching. Prerequisite: ART 365. May be taken for one through six credits.

**ART 489 INTERNSHIP** 0.0 (0, 0, 0) A practical experience in a selected field of artistic endeavor designed to meet the students needs. May be taken for three through twelve credits.

**ART 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**ART 498 ADVANCED PUPPETRY** 0.0 (0, 0, 0) Direction of the course of study is determined by the student and instructor. Prerequisite: ART 298, similar background, or permission of instructor. May be taken for one through six credits.

**AST 105 THE EXPLORATION OF THE SOLAR SYSTEM** 3.0 (3, 0, 0) A descriptive astronomy course concerning contemporary astronomical and astrophysical theories about the solar system.

**AST 106 ONE POSSIBLE UNIVERSE** 3.0 (3, 0, 0) A descriptive astronomy course concerning contemporary astronomical and astrophysical theories about the universe.

**AST 108 OBSERVING THE AUTUMN SKY** 1.0 (1, 0, 0) This module concentrates on the constellations, stars, and other celestial objects found in the evening sky during autumn. Students also learn pertinent historical, legendary, and astronomical facts about them.

**AST 109 OBSERVING THE WINTER SKY** 1.0 (1, 0, 0) This module concentrates on the constellations, stars, and other celestial objects found in the evening sky during winter. Students also learn pertinent historical, legendary, and astronomical facts about them.

**AST 110 OBSERVING THE SPRING SKY** 1.0 (1, 0, 0) This module concentrates on the constellations, stars, and other celestial objects found in the evening sky during the spring. Students also learn pertinent historical, legendary, and astronomical facts about them.

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**AST 111 OBSERVING THE SUMMER SKY 1.0 (1, 0, 0)** This module concentrates on the constellations, stars, and other celestial objects found in the evening sky during the summer. Students also learn pertinent historical, legendary, and astronomical facts about them.

**AST 112 AEROSPACE 3.0 (3, 0, 2)** Relevance of space exploration to society will be integrated into course content. The laboratory will acquaint the student with propulsion systems; problems of guidance, navigation, radiation, and aerodynamics; and the physiological and psychological reactions to space travel.

**AST 113 ORIGINS OF LIFE 1.0 (1, 0, 0)** The various mythological and scientifically-based theories about the origin of life are presented for critical study. The various experimental programs currently underway to attempt the generation of life are discussed.

**AST 405 PLANETARIUM OPERATIONS 1.0 (1, 0, 0)** The primary aim of this course is to acquaint the participants with both the extent and limitations of the facility as an educational tool for school children as well as the general public. Prerequisite: Undergraduates/six credits of astronomy or three credits and permission of instructor; Graduates/ permission of instructor.

**AST 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**BFC 213 FISH CULTURE I 3.0 (3, 0, 0)** The technology of controlled husbandry of fish in flowing water. Major emphasis on solving problems relative to the intensive aquaculture.

**BFC 214 FISH CULTURE II 3.0 (3, 0, 0)** The technology of controlled husbandry of fish in standing water. Major emphasis on the science of extensive aquaculture.

**BFC 315 FISH PATHOLOGY 3.0 (2, 0, 2)** A consideration of the diagnosis and treatment of diseases commonly found in hatchery fish. Diseases of bacterial, viral, parasitic, and environmental origin are studied together with recommended treatment for each.

**BFC 317 FISH MANAGEMENT 3.0 (3, 0, 0)** A consideration of how fish populations become structured and the effects of various rates of exploitation upon these structures. A practical explanation of relative efficiencies of different fish management practices on maintaining fishery yields desirable to anglers is emphasized.

**BFC 318 LITERATURE REVIEW AND REPORTS IN FISH CULTURE 1.0 (1, 0, 0)** A study of scientific literature of fish culture, with special emphasis on its organization and retrieval and the writing of reports.

**BFC 404 SEMINAR 1.0 (1, 0, 0)** Students are exposed to the fisheries profession through seminars from guest lecturers.

**BIO 101 MAN AND THE BIOLOGICAL WORLD 4.0 (3, 0, 2)** An introduction to biological processes; study and discussion of these processes together with ecological aspects of life. The laboratory stresses demonstration and analysis of biological processes.

**BIO 102 CONTEMPORARY BIOLOGICAL PROBLEMS 3.0 (3, 0, 0)** There is no fixed syllabus. Topics are current and usually

changed for each semester. Guest lecturers will be given time to present their specialties. Prerequisite: BIO 101.

**BIO 103 HUMAN ANATOMY 4.0 (3, 0, 3)** A structural approach to the human organ systems.

**BIO 104 HUMAN PHYSIOLOGY 3.0 (2, 0, 2)** A functional approach to the human organ systems.

**BIO 111 INTRODUCTION TO CELL BIOLOGY 4.0 (3, 0, 3)** A study of the cellular level of life with emphasis on cellular structures and their relationship to movement, function, and energy transformation. Cellular genetics and the cellular approach to medicine are also discussed.

**BIO 121 HUMAN ANATOMY AND PHYSIOLOGY I 4.0 (3, 0, 2)** This course presents an integrated approach to the study of the anatomy and physiology of the various organ systems of the human body.

**BIO 122 HUMAN ANATOMY AND PHYSIOLOGY II 4.0 (3, 0, 2)** A continuation of Bio 121. This completes an integrated approach to the study of the anatomy and physiology of the various organ systems of the human body.

**BIO 210 ZOOLOGY 4.0 (3, 0, 2)** An evolutionary approach to the study of the animal kingdom, with attention given to the development of organ systems throughout the several phyla of invertebrates and vertebrates. Function, correlated with structure and taxonomic features, is emphasized. Additional evidence for evolution is included through an introduction to genetics, embryology, and ecology.

**BIO 220 BOTANY 4.0 (3, 0, 2)** Study of plant structures and function, development, growth, diversity, and evolution. Prerequisite: BIO 101 or 111.

**BIO 222 HORTICULTURE 3.0 (3, 0, 0)** A course designed for the study of garden and interior plants. Lecture and laboratory sessions will provide information on soils, lighting, watering, and other cultural requirements of plants as well as the methods and techniques for growing and maintaining indoor and outdoor plants.

**BIO 230 FIELD ZOOLOGY 3.0 (3, 0, 0)** Taxonomy of local fauna; field collections and laboratory studies. Prerequisite: BIO 101, 111 or 210.

**BIO 240 LOCAL FLORA 3.0 (2, 0, 2)** Taxonomic and ecological study of local flowering and non-flowering plants. Prerequisite: BIO 101 or 220.

**BIO 250 MARINE BIOLOGY 3.0 (2, 0, 2)** Includes studies basic to the biology and ecology of marine organisms. Practical applications such as biological/ecological sampling techniques and species identification are covered in the laboratory and on a coastal field trip. Prerequisite: permission of the instructor. BIO 310 recommended.

**BIO 251 TROPICAL MARINE BIOLOGY 1.0 (1, 0, 1)** Tropical marine communities are among the richest and biologically most diverse in the oceanic environment. This course is designed to provide insight into the biology/ecology of the mangrove, intertidal, and coral reef ecosystems. A week-long visit to the tropics which includes snorkeling and diving provides students with firsthand experience. Prerequisite: permission of instructor.

**BIO 260 FIELD METHODS IN ENVIRONMENTAL BIOLOGY** 3.0 (2, 0, 2) A study of the field methods employed in measuring the biological qualities of the environment. Techniques applicable to surveys of the major aquatic and terrestrial habitats are taught through field experience. Analysis of data obtained and consideration of its significance is an integral part of the course. Prerequisite: BIO 101 or equivalent. BIO 310 recommended.

**BIO 309 EPIDEMIOLOGY** 3.0 (2, 1, 0) The study of distribution and determinants of disease and injury in populations. Provides an introduction into community health and medical problems and services. Problem solving, case-control studies, and statistical analysis are emphasized. Prerequisite: permission of instructor.

**BIO 310 ECOLOGY** 3.0 (2, 0, 2) A study of the fundamental ecological principles of plants and animals in their environment. Prerequisite: BIO 101 or permission of instructor.

**BIO 325 ENTOMOLOGY** 3.0 (2, 0, 2) Survey of the classification, structure, physiology, biology and economic importance of insects. An introduction to the study of insects as a major segment of the biological community. Laboratory exercises on anatomy and practice in the techniques of insect identification. Prerequisite: BIO 210 or permission of instructor.

**BIO 330 PLANT PHYSIOLOGY** 3.0 (2, 0, 2) Designed to develop an understanding of the chemical and physical processes occurring in plants including respiration, photosynthesis, hormonal activity, osmosis, transpiration, mineral absorption and translocation. The laboratory work will involve analysis of these functions. Prerequisite: BIO 111 and 220 or permission of instructor.

**BIO 331 VERTEBRATE ANATOMY** 3.0 (2, 0, 4) A history of vertebrates and comparative systems through the major vertebrate groups correlating their historical development. Prerequisite: BIO 101 or 111.

**BIO 332 PHYSIOLOGY** 4.0 (2, 0, 3) A systematic study of the life processes and functions of the animal body with particular emphasis on the mammalian vertebrate. Prerequisite: BIO 101 or 111.

**BIO 340 GENETICS** 3.0 (2, 0, 3) An introductory course with emphasis on basic principles and concepts of genetics concerning chromosomes, DNA, RNA, linkage, etc. An initial discussion will cover classical genetics followed by an in-depth study of biochemical genetics. The laboratory section of this course will be used to demonstrate the aforementioned principles and concepts as well as acquaint the student with some of the organisms used in genetic research. Prerequisite: BIO 111 or permission of instructor.

**BIO 343 FOOD MICROBIOLOGY** 4.0 (3, 0, 2) Basic microbiology of bacteria, yeasts, and molds with emphasis as to preparation and preservation of foods, water and waste control, disease mechanisms, and special food products. This course is a required course for transcript evaluation prior to taking the registry exam by the American Dietetic Association. Prerequisite: junior standing.

**BIO 345 DEVELOPMENTAL BIOLOGY** 3.0 (2, 0, 3) A comparative survey of the development of representative animals from several phyla with emphasis on gamete formation, fertili-

zation, embryonic development, organogenesis, growth, and biological aging. The laboratory combines examples of live plant and animal development with prepared slides of frog and chick embryology. Prerequisite: BIO 111 and 210 or permission of instructor.

**BIO 351 ANIMAL HISTOLOGY AND BASIC MICROMECHANICS** 3.0 (2, 0, 2) A systematic study of the microanatomy of the vertebrate body starting with cells and tissues and working through the complete organ systems. Prerequisite: BIO 101 or 111.

**BIO 360 ICHTHYOLOGY** 3.0 (2, 0, 2) A laboratory and field study of the fishes inhabiting the lakes and rivers of this area constitute the major portion of this course. Collection, measurement and chemical data as related to fish populations, management, and meristic characters will be collected and analyzed. Prerequisite: BIO 210, 310, 331 or permission of instructor.

**BIO 362 LIMNOLOGY** 3.0 (2, 0, 2) Deals with basic concepts in the study of inland waters. Focus on biological, chemical, physical, and geological factors which determine biological productivity in natural waters. Prerequisite: BIO 111 or permission of instructor.

**BIO 380 IMMUNOLOGY** 3.0 (2, 0, 2) The study of antigens and antibodies encompassing the fields of the immune response, autoimmunity, allergic reactions, tumor immunology, tissue graft and transplant biology.

**BIO 401 BIOSTATISTICS AND EXPERIMENTAL DESIGN** 3.0 (2, 1, 0) Presents to science students a description of the processes of experimental design, selection of appropriate statistical tests to analyze experimental data, and performance of these tests using current software. Prerequisite: MA 105 or permission of instructor.

**BIO 404 SEMINAR** 1.0 (0, 1, 0) Study and research projects involving investigation of recent literature in the field of biology; preparation of seminar papers on assigned problems.

**BIO 444 MOLECULAR BIOLOGY** 3.0 (2, 0, 2) An examination of the principles and techniques underlying the chemical and physical aspects of living systems. A study of the structure and activities of biological molecules which properly integrated, constitute all forms of life. The laboratories will demonstrate techniques of the activities, separation and analysis of these molecule forms. Prerequisite: BIO 111.

**BIO 450 INTERNSHIP** 0.0 (0, 0, 0) The biology internship gives students the opportunity to apply knowledge and skills in the biological sciences while working with a public or private agency involved in aspects of applied biology. The practical experience thus acquired both supplements and reinforces the more academic aspects of biology stressed in the classroom. May be taken for one through twelve credits. NO MORE THAN TEN CREDITS COUNT TOWARD THE MAJOR.

**BIO 460 AQUACULTURE RESEARCH** 0.0 (0, 0, 0) A special research project is initiated by the student to increase his/her expertise in investigating a scientific problem and reporting the results in the form of a scientific paper. The research is conducted under the guidance of a faculty member who has special expertise in the subject area. Prerequisite: permission of instructor. May be taken for one through three credits.

## COURSE DESCRIPTION

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**BIO 461 MANAGEMENT OF SMALL IMPOUNDMENTS 3.0** (1, 0, 4) Theory, practice, and demonstration of managing farm ponds for optimal sport fishing. Prerequisite: six credits of biology and permission of instructor. Dual listed with 561.

**BIO 462 MANAGEMENT OF STREAMS AND LARGE IMPOUNDMENTS 3.0** (1, 0, 4) Theory, practice, and demonstration of managing streams, rivers, natural lakes, and large impoundments for optimal sport fishing. Prerequisite: six credits of biology and permission of instructor. Dual listed with 562.

**BIO 465 (GEG) SEMINAR IN ENVIRONMENTAL SCIENCE 1.0** (1, 0, 0) An upper level seminar that integrates and applies concepts and skills taught in the basic courses of the environmental science emphasis.

**BIO 482 CELL PHYSIOLOGY 3.0** (3, 0, 0) A study of a specialized field of cell biology which emphasizes phenomena dealing with the nature of the cell membrane and its transport activities, the reaction of cells to changes in environment, the mechanism of cell excitability and contraction, and other manifestations of cellular functioning such as nutrition, growth and secretion.

**BIO 497 INDEPENDENT STUDY 0.0** (0, 0, 0) (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**BUS 130 INTRODUCTION TO BUSINESS AND MANAGEMENT 3.0** (3, 0, 0) Studies an overview of the broad concept of business functions. Provides a foundation for understanding the relationship between essential activities of business. Helps students to determine and pursue their areas of interest and aptitude.

**BUS 150 WOMEN IN MANAGEMENT 3.0** (3, 0, 0) This course examines management structure and practice in relation to women; their goals, expectations, attitudes, and skills. The difficulties women encounter in being successful in management will be analyzed and strategies which both men and women can use in changing the situation will be discussed. The course will emphasize case studies.

**BUS 160 SMALL BUSINESS MANAGEMENT 3.0** (3, 0, 0) Emphasizes aspects of management unique to small firms. Examines the characteristics of entrepreneurs and the process of strategic planning for small firms.

**BUS 230 MANAGEMENT PRINCIPLES 3.0** (3, 0, 0) Acquaints the student with the functions and internal structure of modern business. Students will learn the techniques and systems employed by management to run an efficient organization.

**BUS 301 INTRODUCTION TO FINANCE 3.0** (3, 0, 0) Examines basic concepts and techniques for identifying and solving elementary financial management problems. Topics include compound interest and time value of money, financial statement analysis, working capital management, cash flow analysis and capital budgeting, short-term financing, and stockholder equity valuation. Prerequisite: ECO 101 and MA 125.

**BUS 302 MANAGERIAL DECISION MAKING 3.0** (3, 0, 0) Examines decision making as a multi-dimensional process. A variety of models and frameworks, quantitative and qualitative, are offered as a rational approach to managerial decisions. Prerequisite: BUS 230.

**BUS 321 ENVIRONMENT AND MANAGEMENT OF INTERNATIONAL BUSINESS 3.0** (3, 0, 0) Provides a managerial view point of the dynamics of international business. Topics

covered include history and scope of international business, international trade theory, foreign direct investment, governmental influences on trade and regional economic integration, and socio-cultural and legal factors on MNCs. Prerequisite: BUS 230, ECO 101 and 102.

**BUS 330 MARKETING 3.0** (3, 0, 0) Introduces the nature of marketing activities, consumer behavior and motivation. Focuses on an individual firm managing its marketing efforts in relation to market forces and marketing opportunities. Emphasis on development of product, price, promotion, and distribution policies in order to achieve planned marketing programs. Prerequisite: BUS 130, ECO 101 and 102.

**BUS 332 PROMOTION IN MARKETING 3.0** (3, 0, 0) Examines the promotion functions of the marketing program. It also helps students to analyze marketing communication opportunities, planning, and execution of the marketing program. Prerequisite: BUS 130 and 330.

**BUS 333 (ECO) INTERNATIONAL FINANCIAL MANAGEMENT AND ECONOMICS 3.0** (3, 0, 0) Designed to study the mechanism of international business finance. Topics covered include the study of foreign exchange market, Eurodollar market, inflow and outflow of capital to and from the U.S., the effect of U.S. interest rate on imports and exports, and foreign exchange risk. Prerequisite: ACC 111, ECO 101, 102 and MA 125.

**BUS 334 MARKETING RESEARCH 3.0** (3, 0, 0) Provides an indepth examination of market research tools and techniques. Emphasis is on effectiveness of the total efforts in an atmosphere of tight budgetary and fiscal control. Also reviews successful efforts and stresses on practical application of theory. Prerequisite: BUS 130, 330, MA 125 or permission of instructor.

**BUS 345 (PSC/PA) GOVERNMENT AND BUSINESS IN SOCIETY 3.0** (3, 0, 0) Examines the idea of "social responsibility" of business. Examines the political and economic framework that affects legislation and business strategy. Considers the value judgments which influence policy makers.

**BUS 349 QUANTITATIVE BUSINESS ANALYSIS 3.0** (3, 0, 0) Provides a systematic application of modern quantitative tools and techniques in practical situations. Topics include hypothesis testing, probability distribution, simple and multiple regression, and time series analysis. Prerequisite: MA 125.

**BUS 350 PRODUCTION MANAGEMENT 3.0** (3, 0, 0) A study and use of analytical tools for demand forecasting, use of system design and measurement, inventory control and resource allocation. Specialized and analytical techniques are used to deal with practical situations. Prerequisite: MA 105 and 111.

**BUS 370 SALESMANSHIP 3.0** (3, 0, 0) Provides students with entry level skills for a position in sales. Recognizes the necessary skills and characteristics that contribute toward greater sales effectiveness. Stresses the importance of establishing realistic goals and objectives; to manage your time and selling activities more effectively. The primary objective, however, is to gain an understanding of personal selling as a major function within the marketing and promotional mix of a firm. Prerequisite: BUS 130, 330 or permission of instructor.

**BUS 402 CORPORATE FINANCE 3.0** (3, 0, 0) Focus on how individuals, financial institutions, and corporations make invest-

ment and financing decisions over multiple time period in an uncertain environment. Topics include theory of choice, efficient capital markets, CAPM and APT, capital budgeting under uncertainty, capital structure theories and policies, dividend policy, mergers and restructuring, and elements of international financial management. Prerequisite: BUS 301, CIS 103, ECO 102, MA 125 and 170 OR MA 231.

**BUS 403 BUSINESS AND AMERICAN FOREIGN POLICY 3.0** (3, 0, 0) Provides a systematic look at the U. S. Foreign policy on international business. Topics covered include economic, social and political objectives of foreign policy, the impact of foreign policy on East-West trade relations, emerging market economies in eastern Europe and U.S. foreign policy, NAFTA, GATT, GSP and U.S. multinational corporations. Prerequisite: ECO 101, 102 and BUS 230.

**BUS 404 INTERNATIONAL RELATIONS IN ASIA AND LATIN AMERICA 3.0** (3, 0, 0) Examines the theories of international relations in the emerging industrial countries of Asia and Latin America. Will analyze U.S. and European competition in the area. Regional conflicts between nations in these regions and means of resolving conflicts in the light of changing world politics will be discussed. Prerequisite: ECO 101, 102 and PSC 210.

**BUS 410 BUSINESS LAW I 3.0** (3, 0, 0) Introduces the legal environment of business and its role in modern society. Topics include the formation of contracts, sales, negotiable instruments, bank deposits and collections, secured transactions, and business organization. Emphasizes social and ethical considerations, terminology, fundamental legal principles, and analysis.

**BUS 411 BUSINESS LAW II 3.0** (3, 0, 0) Continued study of legal principles including agency, property, Federal Securities law, and bankruptcy. Emphasis is placed on the case law approach and problem solving. Prerequisite: BUS 410.

**BUS 415 MARKETING MANAGEMENT 3.0** (3, 0, 0) Studies an in-depth examination of contemporary micro and macro marketing systems. Examines functional marketing decisions through the application of behavioral concepts, quantitative tools, and systems theory. Also presents advanced marketing techniques used by marketing organizations. Looks at individual behavior in order to evaluate the buying behavior of consumers with the objective of tailoring marketing strategies to meet consumers' needs and wants. Prerequisite: BUS 130, 330, junior standing or permission of instructor.

**BUS 420 TOPICAL SEMINAR/MARKETING FOR NON-PROFIT ORGANIZATIONS 3.0** (3, 0, 0) Marketing for Non-Profit Organizations.

**BUS 421 TOPICAL SEMINAR/MARKETING CHANNELS OF DISTRIBUTION 3.0** (3, 0, 0) Marketing Channels.

**BUS 422 TOPICAL SEMINAR/INTERNATIONAL MARKETING 3.0** (3, 0, 0) Examines the application of marketing concepts and strategies in the global markets. Emphasis is on adjusting and adapting a marketing program to foreign markets. Provides an understanding of differences between markets in different countries, its politics, legal, culture, trade practices, geography, and commercial policies. Studies export and import procedures and practices. Prerequisite: BUS 130 and 330 or permission of instructor.

**BUS 423 TOPICAL SEMINAR/INDUSTRIAL MARKETING 3.0** (3, 0, 0) Industrial Marketing.

**BUS 424 TOPICAL SEMINAR/SALES FORCE MANAGEMENT 3.0** (3, 0, 0) Sales Force Management.

**BUS 425 TOPICAL SEMINAR/CURRENT MARKETING PROBLEMS 3.0** (3, 0, 0) Current Marketing Problems.

**BUS 435 INVESTMENT THEORY 3.0** (3, 0, 0) Introduction to financial policy with special emphasis on the practical application of risk-return theory. Investment decisions by individuals and firms, in stocks and bonds and other securities, made on the basis of incomplete information in an uncertain environment is covered. Prerequisite: BUS 402, MA 125, 129, 170 or permission of instructor.

**BUS 441 FINANCIAL STATEMENT ANALYSIS 3.0** (3, 0, 0) Analyze financial statements issued by public held organizations. Emphasis is on the use of financial statements by creditors, investors, and those who are external to the enterprises. Topics include cash flow analysis, standards of financial analysis, and off-balance sheet financing. Prerequisite: ACC 111, BUS 301 and MA 125.

**BUS 450 ORGANIZATIONAL INTERNSHIP 0.0** (0, 0, 0) Supervised and evaluated participation in the regular activities of a business, government, agency, or appropriate organization. In consultation with the supervising faculty member, the student is expected to prepare a comprehensive final report relating to the work accomplished during the field experience. May be taken for one through fifteen credits. NO MORE THAN SIX CREDITS COUNT TOWARD THE MAJOR.

**BUS 451 BEHAVIORAL APPROACH TO MANAGEMENT 3.0** (3, 0, 0) An examination of theories, concepts, and research findings emerging from the various disciplines which study individual and group behavior within organizational systems. Prerequisite: junior or senior standing.

**BUS 490 BUSINESS POLICY 3.0** (3, 0, 0) Studies business problems and the formulation of policies to meet these problems from a general management viewpoint. Integrates knowledge from other courses to develop skills in policy formulation. Emphasizes long-range goals and administrative action. Case studies and simulation used. Prerequisite: Senior standing.

**BUS 497 INDEPENDENT STUDY 0.0** (0, 0, 0) (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**CHM 101 INTRODUCTORY CHEMISTRY 4.0** (3, 1, 2) A treatment of fundamental principles for non-science majors. Does not meet degree requirements for chemistry or biology majors.

**CHM 102 ORGANIC AND BIOCHEMISTRY 4.0** (3, 1, 2) Deals with the principles of organic and biochemistry which are important and useful to non-science majors. Does not meet degree requirements for chemistry or biology majors. Prerequisite: CHM 101.

**CHM 103 CHEMISTRY AND THE ENVIRONMENT 4.0** (3, 0, 3) Examines the theory and practice of chemistry and related topics. Topics treated will be integrated and historically developed.

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**CHM 106 CHEMISTRY FOR THE ALLIED HEALTH SCIENCES 4.0 (4, 0, 0)** A one-semester survey course for non-science majors. General organic, biochemistry, and clinical chemistry are emphasized for students in health support programs.

**CHM 110 SURVEY OF CHEMISTRY-INTRODUCTORY, ORGANIC, AND BIOLOGICAL 4.0 (3, 1, 2)** A survey course for non-science majors. General, Organic, and Biological Chemistry are emphasized. Does not meet degree requirements for chemistry and biology majors.

**CHM 111 GENERAL CHEMISTRY I 4.0 (3, 0, 3)** Designed for science majors and is a study of the fundamental principles of chemistry from the standpoint of stoichiometry, gases, states of matter, solutions and equilibrium theory. Laboratory sessions stress the chemical principles discussed in the lecture.

**CHM 112 GENERAL CHEMISTRY II 4.0 (3, 0, 3)** A continuation of 111: kinetics, thermodynamics, oxidation-reduction, atomic and molecular structure, bonding, and periodic relationships are studied. The laboratory work is an introduction to qualitative analysis and includes experiments designed to exemplify chemical principles. Prerequisite: CHM 111.

**CHM 201 INTRODUCTION TO BIOCHEMISTRY 4.0 (3, 0, 2)** A one-semester course in elementary biochemistry for non-science majors having minimum preparation in organic chemistry. Prerequisite: CHM 102.

**CHM 301 ORGANIC CHEMISTRY I 4.0 (3, 0, 4)** Fundamentals of organic chemistry are presented. Modern theory, reaction mechanisms and stereochemistry are included along with nomenclature, preparation, reactions and properties of organic compounds. The laboratory stresses syntheses, chemical and physical properties and an introduction to instrumental techniques. The laboratory period includes one hour of lecture on theory and techniques of laboratory operations. Prerequisite: CHM 112.

**CHM 302 ORGANIC CHEMISTRY II 4.0 (3, 0, 4)** A continuation of 301. The laboratory period includes one hour of lecture on theory and techniques of laboratory operations. Prerequisite: CHM 301.

**CHM 311 QUANTITATIVE ANALYSIS 4.0 (3, 0, 4)** An introductory course in analytical chemistry emphasizing classical titrimetric and gravimetric methods and related theories. Prerequisite: CHM 112.

**CHM 321 PHYSICAL CHEMISTRY I 4.0 (3, 0, 4)** A study of the fundamental principles of thermodynamics of gases and non-electrolytes. Topics include kinetic theory, gases, thermodynamic and nonelectrolyte solutions. Prerequisite: CHM 112, 311, MA 233, PHY 188, and 211.

**CHM 322 PHYSICAL CHEMISTRY II 4.0 (3, 0, 4)** A continuation of 321. Topics include thermodynamics of electrolytes, atomic and molecular structure and chemical kinetics. Prerequisite: CHM 321.

**CHM 332 INSTRUMENTAL ANALYSIS 4.0 (3, 0, 4)** Deals with the principles and applications of instrumental methods in chemical and structural analysis. Studies include electroanalytical, spectrophotometric, and chromatographic techniques. Prerequisite: CHM 311.

**CHM 341 BIOCHEMISTRY 4.0 (3, 0, 3)** A study of carbohydrates, lipids, proteins, enzymes, nucleic acids, vitamins, and hormones in terms of structure, function, and synthesis in living systems. The laboratory includes the isolation, identification, and chemical behavior of biochemically important molecules. Prerequisite: CHM 302 or permission of instructor.

**CHM 352 RADIOCHEMISTRY 3.0 (2, 0, 3)** The study of radioisotope methodology. A laboratory oriented course familiarizing the student with radiation detection and applications in natural science problems. Prerequisite: junior or senior standing or permission of instructor.

**CHM 410 SEMINAR 1.0 (1, 0, 0)** Deals with reports emphasizing chemical literature searches and/or current research. Prerequisite: upper division chemistry major.

**CHM 420 QUALITATIVE ORGANIC CHEMISTRY 3.0 (2, 0, 4)** The identification of organic compounds by various classical and instrumental techniques. Prerequisite: CHM 302.

**CHM 421 ADVANCED ORGANIC CHEMISTRY 3.0 (3, 0, 0)** An advanced lecture course designed to deepen and expand knowledge in the field. Topics such as reactions, mechanisms, reactive intermediates, photochemistry, kinetics, stereochemistry, natural products, and spectroscopy may be stressed. Prerequisite: CHM 302.

**CHM 431 ADVANCED INORGANIC CHEMISTRY 4.0 (3, 0, 4)** A presentation of atomic structure and periodic properties. In addition to other topics; valence bond, molecular orbital, crystal field and ligand field theories are treated. Laboratory sessions include one hour of lecture on theory and techniques in the preparation of representative compounds. Prerequisite: CHM 302 and 332. CHM 322 is suggested.

**CHM 432 STRUCTURAL CHEMISTRY 3.0 (3, 0, 0)** The symmetry and structural properties of molecular systems are utilized to determine their energy levels. The electronic and vibrational spectroscopic properties of these systems will be predicted also utilizing symmetry properties. These spectra-structure correlations will be made on organic and inorganic systems. Prerequisite: CHM 302.

**CHM 490 PROBLEMS IN CHEMISTRY 0.0 (0, 0, 0)** Involves the student in study projects under the direct supervision of an instructor. Library and laboratory research in selected problems. Prerequisite: Permission of instructor. May be taken for one through three credits.

**CHM 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**CIS 101 COMPUTERS IN SOCIETY 3.0 (3, 0, 0)** Examines the impact of computers on modern society and how they are programmed and used. A variety of computer applications from the social sciences, humanities, natural sciences, and professions will be studied.

**CIS 102 BASIC PROGRAMMING 3.0 (3, 0, 0)** Introduces problem solving through the use of the programming language, BASIC. Enables students to write programs which they can use for handling data or for instructional programs.

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**CIS 103 INTRODUCTION TO MICROCOMPUTERS** 3.0 (3, 0, 0) Introduces the Disk Operating System for microcomputers and the use of wordprocessing, spreadsheet, and data base management software.

**CIS 104 COMPUTER SCIENCE I** 3.0 (3, 0, 0) Introduces a high-level programming language as a means of studying problem solving, algorithms, and program structure. Includes data representation, repetition, selection, modular programming, debugging, and verification of programs.

**CIS 105 BUSINESS PROGRAMMING CONCEPTS I** 3.0 (3, 0, 0) An introduction to analyzing and designing solutions to business-related problems using a business programming language. Prerequisite: CIS 104.

**CIS 203 SOFTWARE FOR BUSINESS APPLICATIONS** 3.0 (3, 0, 0) Advanced applications of spreadsheets, data base management systems, and graphics. Prerequisite: CIS 103.

**CIS 204 COMPUTER SCIENCE II** 3.0 (3, 0, 0) Emphasizes algorithms, structured programming and program analysis and design. Topics include files, records, recursion, string manipulation, graphics, and dynamic data structures. Prerequisite: CIS 104.

**CIS 205 BUSINESS PROGRAMMING CONCEPTS II** 3.0 (3, 0, 0) A second course in business programming stressing file processing and advanced programming techniques. Prerequisite: CIS 105.

**CIS 300 PROGRAMMING LANGUAGES** 3.0 (3, 0, 0) Comparative study of current programming languages. Examines the structure of languages and their use in problem solving. Prerequisite: CIS 204 and 330.

**CIS 301 DATA STRUCTURES** 3.0 (3, 0, 0) Topics covered are data types, arrays, records, stacks, queues, linked lists, and trees. Other more advanced topics may include: file structures, recursion, heuristics, and hashing. Prerequisite: CIS 204.

**CIS 308 OPERATIONS RESEARCH** 3.0 (3, 0, 0) The development and use of the techniques of operations research. Topics include linear programming, queuing theory, probabilistic inventory models and simulation. Prerequisite: CIS 203 or 204; MA 125 or 314; MA 129, 260 or 280; MA 170 or 231.

**CIS 310 SYSTEMS ANALYSIS** 3.0 (3, 0, 0) An introduction to the concepts of systems analysis and design. Problem definition; data gathering, information analysis, presentation techniques, implementation planning, system controls, documentation. Prerequisite: BUS 130, and CIS 103 or 105.

**CIS 314 (ACC) AUTOMATED ACCOUNTING SYSTEMS** 3.0 (3, 0, 0) Introduction to the development and implementation of an accounting information system. Prerequisite: ACC 315 and CIS 203 or permission of instructor.

**CIS 320 COMPUTER ARCHITECTURE** 3.0 (3, 0, 0) Classification of computers. Defining hardware and software interfaces within a computer system. Special purpose architectures. Prerequisite: CIS 330

**CIS 325 OPERATING SYSTEMS** 3.0 (3, 0, 0) Functions and characteristics of an operating system: concurrent processes,

system nucleus, memory management, input and output, filing system, resource allocation and scheduling, system protection and reliability, and job control. Prerequisite: CIS 301 and 330.

**CIS 330 COMPUTER ORGANIZATION** 3.0 (3, 0, 0) Overview of computer hardware, computer structure, machine representation of information, instruction codes, addressing, concepts of digital logic, microprogramming and assembly language programming. Prerequisite: CIS 104.

**CIS 335 ASSEMBLY LANGUAGE PROGRAMMING** 3.0 (3, 0, 0) Explores assembly language programming including macro and subroutines. Emphasis will be on application and systems programming including machine organization for a general purpose computer. Prerequisite: CIS 204 and 330.

**CIS 340 DATABASE SYSTEMS** 3.0 (3, 0, 0) First course in the theory and use of database management systems. Provides experience in the creation of an actual database system and the manipulation of the data in it. Prerequisite: CIS 205 and 301.

**CIS 361 ANALYTICAL METHODS OF INFORMATION SCIENCE** 3.0 (3, 0, 0) The study of key mathematical developments in computer science. Topics will include: sets, functions, relations, graphs, and digraphs. Other computer-specific topics may include: recursion, finite state machines, formal language theory, list processing support for management and decision functions. Prerequisite: CIS 204 and 330.

**CIS 401 MANAGEMENT INFORMATION SYSTEMS** 3.0 (3, 0, 0) Advanced study of information processing systems which provide transactional processing for an organization and information and processing support for management and decision functions. Prerequisite: CIS 310.

**CIS 420 SPECIAL PROBLEMS IN COMPUTER APPLICATIONS** 0.0 (0, 0, 0) Study of a specialized topic. Possible topics include Computer Aided Design, Data Base Systems, Telecommunications, Advanced Business Programming.

**CIS 430 PROGRAM TRANSLATION** 3.0 (3, 0, 0) The theoretical aspects of program translation: Compilers, assemblers, and interpreters: Prerequisite: CIS 301 and 330.

**CIS 440 ARTIFICIAL INTELLIGENCE** 3.0 (3, 0, 0) The application of computers to solve problems and to understand the principles of human intelligence including search, reasoning, and problem reduction. Applications to games, expert systems, natural language, learning, robotics, and computer vision. Prerequisite: CIS 204.

**CIS 441 SWITCHING THEORY AND LOGIC DESIGN** 3.0 (3, 0, 0) An introduction to electronic circuits used in digital systems including computers, instruments, communications systems, and control systems. Topics include Boolean algebra, switching theory, logic design, and major digital circuit lines. Prerequisite: CIS 204 and 330.

**CIS 450 ORGANIZATIONAL INTERNSHIP** 0.0 (0, 0, 0) Supervised and evaluated participation in the regular activities of a business, government, agency, or appropriate organization. In consultation with the supervising faculty member, the student is expected to prepare a comprehensive final report relating to

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the work accomplished during the field experience. May be taken for one through twelve credits. A maximum of six credits will count toward the major.

**CIS 490 COMPUTER COMMUNICATIONS 3.0 (3, 0, 0)** First course in data and computer communications. Communication principles, computer requirements, networking, standards, and future trends and issues will be examined. Prerequisite: CIS 330.

**CIS 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**CJA 100 INTRODUCTION TO THE ADMINISTRATION OF CRIMINAL JUSTICE 3.0 (3, 0, 0)** An introduction to the field of criminal justice, its major components, roles and functions. Emphasis is placed upon concepts of law and the historical descriptive analysis of the police, courts, and corrections.

**CJA 201 INTRODUCTION TO CORRECTIONS ADMINISTRATION 3.0 (3, 0, 0)** Origin and history of incarceration practices and procedures; associated organizational, criminological and phenological concepts; categories of inmates and laws affecting classification; special custody problems and treatment programs, staff organization; professional, administrative and custodial personnel training, recruitment and promotions; inter-agency relationships and cooperation; release programs, furloughs, work-release, and final discharge.

**CJA 202 INTRODUCTION TO LAW ENFORCEMENT 3.0 (3, 0, 0)** Introduction to law enforcement problems and practices; its legal, political, and historical framework. An analysis of police organizations and their relationship with other criminal justice and social agencies.

**CJA 240 ORGANIZED CRIME IN AMERICA 3.0 (3, 0, 0)** An investigation into the historical background and development of organized crime as well as the structure and operations of criminal syndicates. Specific types of organized crime will also be explored with a final analysis of the legal responses to this social problem.

**CJA 251 POLICE-COMMUNITY RELATIONS 3.0 (3, 0, 0)** Basic definitions; rule of law; individual and societal aspects of police-community relations; police and minority groups; social change and law enforcement; principles of programming in police-community relations; police discretion; police role, police problems.

**CJA 252 INVESTIGATION AND INTERROGATION 3.0 (3, 0, 0)** An introduction to the fundamentals of criminal investigation, rules of evidence, sources of information, observations, descriptions, and identifications, including collection, preservation, and processing of physical evidence, records, reports, statements, case preparation, surveillance and undercover techniques, modus operandi information.

**CJA 256 PROBATION, PAROLE AND COMMUNITY CORRECTIONS 3.0 (3, 0, 0)** Examination of community treatment in the correctional process; contemporary usage of presentence investigation; selection, supervision, release of probationers and parolees; diversion, work release, furlough, halfway houses, and jails.

**CJA 257 CORRECTIONAL INSTITUTIONS AND SERVICES 3.0 (3, 0, 0)** Intensive analysis of extramural programs for juvenile and adult offenders; professional functions in the total correctional process.

**CJA 276 CRIMINOLOGY: A MULTIDISCIPLINARY APPROACH 3.0 (3, 0, 0)** Acquaint students with the nature and forms of crime. Major areas of concern are the functions of law, the scientific study of crime, criminological topologies, classical and positivistic definitions of crime, comparative criminology, and the problem of punishment.

**CJA 301 INDUSTRIAL SECURITY 3.0 (3, 0, 0)** Examines basic industrial security concepts, principles, and methodologies. Provides knowledge of procedures and programs currently applied in industrial security management.

**CJA 324 ADMINISTRATION OF JUSTICE 3.0 (3, 0, 0)** An examination of the role and function of the judiciary in the criminal justice decision-making process. It includes a survey of America's court system and an in-depth analysis of its major components. Emphasis will also be placed on important interactions within the judicial system and its major interrelationships with other criminal justice agencies.

**CJA 326 COURT MANAGEMENT 3.0 (3, 0, 0)** Examines the major problem areas of court administration; judges as administrators; budgeting, calendars, case flow management; jury selection, juror utilization; records management, legal forms, forms design; personnel practices and administration. This course is problem solving oriented. Field trips, investigation, and guest lectures will supplement the materials presented in class.

**CJA 336 CRIMINALISTICS 3.0 (3, 0, 0)** Examines the phase of the criminal investigation process concerned with physical evidence. Major emphasis will be placed upon legal and technical consideration in the recognition, collection, and preservation of various categories of physical evidence and the process through which it is transmitted to the crime laboratory. Attention will also be given to knowledge requirements of the evidence technician in terms of the capabilities and techniques of the crime laboratory. Prerequisite: CJA 252 or permission of instructor.

**CJA 340 MANAGEMENT OF VOLUNTEERS IN CJA 3.0 (3, 0, 0)** Develops an understanding of the importance of the volunteer movement in criminal justice administration. It shows how volunteers have been and can be used in criminal justice agencies. Analyzes the motives of volunteers and assists the professional in the screening and training of volunteers. Recruitment and rewarding of volunteers is also discussed.

**CJA 354 CRIMINAL LAW 3.0 (3, 0, 0)** Principles, theories and doctrines of the law of crimes with a unified study of legal defenses; elements and proof in crimes of frequent concern; importance of criminal law at the enforcement level is considered from crime prevention to the courtroom; case analysis.

**CJA 356 LAW OF CORRECTIONS 3.0 (3, 0, 0)** Analysis of the legal dimension of sentencing; the correctional treatment of persons under sentence, and conditional release and revocation with emphasis on administrative decision-making in the correctional process.

**CJA 357 CORRECTIONAL STRATEGIES** 3.0 (3, 0, 0) Offender classification; special offender groups, treatment, custody, recidivism, and strategies designed to change offender conduct.

**CJA 359 JUVENILE JUSTICE** 3.0 (3, 0, 0) Structure and format of the juvenile justice system-police, courts and corrections; analysis and description of the organizational structure of each of the subsystems of the juvenile justice process; introduction to juvenile justice literature and research findings.

**CJA 395 DELINQUENCY AND THE CRIMINAL JUSTICE SYSTEM** 3.0 (3, 0, 0) Expose students to the full impact of the delinquency problem. Theories of delinquency causation, prevention, and rehabilitation will be critically examined.

**CJA 401 ADVANCED INDUSTRIAL SECURITY** 3.0 (3, 0, 0) Advanced course of industrial and government security concepts, principles, and methodologies; knowledge of relationships of industrial security procedures in business organizations to the Department of Defense National Security Program.

**CJA 405 RESEARCH METHODS IN CRIMINAL JUSTICE** 3.0 (3, 0, 0) An introduction to research methodology with particular emphasis placed on criminal justice issues. Examines research theory, its major components, and its application to various criminal justice agencies including the police, courts, correctional institutions, etc.

**CJA 450 PRACTICUM IN CRIMINAL JUSTICE ADMINISTRATION** 0.0 (0, 0, 0) Educational and work experience in an actual criminal agency-law enforcement, courts, corrections or industrial security; applicable agency research project; periodic conference with criminal justice agency personnel and faculty advisor. May be taken for one through twelve credits.

**CJA 453 POLICE ORGANIZATION AND ADMINISTRATION** 3.0 (3, 0, 0) Organizational theory, budgeting, personnel management planning, information management theory, civil service, unions, management prerogatives, supervision, executive development, manpower distribution schemes, and policy development and execution as applied in both small and large law enforcement agencies.

**CJA 496 SELECTED TOPICS** 3.0 (3, 0, 0) An intense analysis of a selected topic in law enforcement, adjudication, and correctional fields. Intended for advanced undergraduates, graduates, and inservice professionals. May be taken for a total of nine credits.

**CJA 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**COE 350 COOPERATIVE EDUCATION** 3.0 (3, 0, 0) A work experience program which provides an opportunity to work in the students field of study while attending college. It is intended to supplement and extend classroom experiences.

**COM 101 ORAL COMMUNICATION** 3.0 (1, 2, 0) Objectives are to help the student to formulate his/her own ideas coherently, evaluate factual material, and use sound reasoning patterns in his/her preparation and attempts to communicate concepts orally; to determine and select the most effective means of expression in formal and informal speaking situations. Required of all Mansfield students.

**COM 200 ORAL INTERPRETATION** 3.0 (1, 2, 0) An introductory course in presenting oral readings of various literary genres. It involves written analysis and practical experience in presenting selections, and the understanding and appreciation of oral interpretation as the communication of the readers impression of the authors intent as an artistic representation of his/her world in a piece of literature. Prerequisite: COM 101 or permission of instructor.

**COM 201 INTRODUCTION TO MASS MEDIA** 3.0 (2, 1, 0) Studies the application of modern mass media, its origin, history, theory, principles, and philosophy to the areas of entertainment, instruction, and audience persuasion. Practical experience in the basic media is provided.

**COM 203 VOICE AND ARTICULATION** 3.0 (1, 2, 0) A study of basic physiology and phonetic analysis. It begins with transcription and evaluation of the students speech. Subsequent attention is given to the correction of individual faults in voice and articulation habits in order to achieve clear and effective communication. Prerequisite: COM 101 or permission of instructor.

**COM 204 PUBLIC SPEAKING** 3.0 (1, 2, 0) Advanced study of the construction, preparation, and delivery of the basic types of speeches and of their effect in public speaking situations. Prerequisite: COM 101 or permission of instructor.

**COM 206 FORENSICS** 1.0 (0, 0, 2) Designed for the student interested in intercollegiate forensics. Students are involved in the theory and practice of competitive speaking in debating, extemporaneous speaking, original oratory, oral interpretation, and other forensic events. Prerequisite: permission of instructor. May be taken for a total of eight credits.

**COM 210 INTRODUCTION TO PUBLIC RELATIONS** 3.0 (0, 3, 0) Study of the history, principles, and practice of public relations in business, education, government, and other organizations.

**COM 215 AUDIO PRODUCTION** 3.0 (1, 2, 0) An introductory course in the theory and operation of audio equipment and the creation of various audio presentations. Students write, produce, and perform in a series of individual and group projects.

**COM 220 AMERICAN BROADCASTING HISTORY** 3.0 (3, 0, 0) An introduction to the American broadcasting system which examines the history of the medium and relates it to current issues in electronic media. The course utilizes historical programming examples, examines broadcast and cable technology, and develops student awareness of the importance of electronic media in our society. Prerequisite: COM 201.

**COM 230 WRITING FOR BROADCASTING MEDIA** 3.0 (1, 2, 0) A basic course in the writing techniques used in American radio and television. The course focuses on the development of original ideas for a range of commercial and promotional needs, including an original television series. Prerequisite: JN 100.

**COM 301 TELEVISION PROGRAM DESIGN I** 3.0 (0, 3, 0) Study of the theoretical and practical aspects of television program conceptualization, scripting, production, presentation, and evaluation. Prerequisite: COM 201 and permission of instructor.

**COM 303 TELEVISION AND RADIO ANNOUNCING** 3.0 (0, 3, 0) In-depth training in effective communication skills employed by broadcasters. Prerequisite: COM 201, 203, 215 301.

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**COM 304 TELEVISION PROGRAM DESIGN II 3.0 (3, 0, 0)** Study of the theoretical and practical aspects of television program conceptualization, scripting, production, editing, presentation, and evaluation. Emphasis is on the application of these elements in a variety of program situations. Prerequisite: COM 201 and 301.

**COM 310 ELECTRONIC MEDIA MANAGEMENT 3.0 (3, 0, 0)** Presents current practices, problems, and issues of electronic media management. Lectures, readings, and class presentations by industry representatives provides an introduction to the business aspects of electronic media. Prerequisite: COM 201 and 220.

**COM 320 ADVANCED PUBLIC RELATIONS 3.0 (0, 3, 0)** An advanced level investigation of the theory and practice of public relations. Special emphasis is placed on discovering the various publics through simulated public relations campaigns. Prerequisite: junior standing.

**COM 325 INTERPERSONAL COMMUNICATION 3.0 (0, 3, 0)** Development of cognitive, affective, and psychomotor skills as they relate to interpersonal communication. Student participation in both the discussion of principles and application of interpersonal exercises.

**COM 330 PARLIAMENTARY PROCEDURE 3.0(0, 3, 0)** Examines history, philosophy, and practice of parliamentary procedure as it applies to our democratic society. Emphasis is on the development of procedures and includes practice in the use of the theories.

**COM 340 PROFESSIONAL ISSUES IN COMMUNICATION 3.0 (2, 1, 0)** Research, prepare, present, and evaluate contemporary issues in the communication field. Investigate professional communication associations and career paths in respective emphases. Prerequisite: COM 101, 201, and JN 100.

**COM 350 BROADCAST WORKSHOP 3.0 (0, 0, 0)** Emphasizes the production of programs designed for public reception. Students will work under professional production team discipline in the areas of format development, advanced writing production, and post production. Prerequisite: COM 201, 301 and 304.

**COM 360 ORGANIZATIONAL COMMUNICATION 3.0 (3, 0, 0)** Examines the process of communication within organizations. Investigates formal and informal communication networks to gain a greater understanding of the vital role that they play within organizational structures and operations. Prerequisite: COM 101.

**COM 400 COMMUNICATION THEORY 3.0 (0, 3, 0)** Study of the major concepts, principles, models, and theories of human communication including, General Systems Theory, General Semantics, role behavior, the diffusion of innovation, the role of language in communication, linguistics, and the psychology of communication. These provide a framework for an investigation of the process of communication on the intrapersonal, interpersonal, small group, one-to-many, and mass media levels.

**COM 401 PERSUASION 3.0 (0, 3, 0)** A study of the psychology of persuasion and its use in a free society, and propaganda

and its effect on our daily living. Prepares the student to evaluate persuasive messages, to use persuasion effectively, and to appreciate the ethics of persuasion.

**COM 403 SPEECH WRITING 3.0 (2, 1, 0)** Practical experience in the techniques of speech writing for speakers and public relations practitioners. Emphasis is placed on actual speech writing situations.

**COM 404 TELEVISION REPORTING 3.0 (3, 0, 0)** Focus is on concepts and practice of broadcasting techniques as applied to live and taped television performance. Prerequisite: COM 203, 303 and 304 or permission of instructor.

**COM 410 (THT) INTERNSHIP 6.0 (0, 0, 0)** Supervised and evaluated participation in varied settings provides practical application of theoretical principles. May be taken for six through fifteen credits.

**COM 415 CONTEMPORARY AMERICAN HUMOR 3.0 (3, 0, 0)** A critical study of contemporary humor employing a variety of communication theories of analysis and criticism. Areas such as television, film, writing, and stand-up will be examined. Prerequisite: COM 101.

**COM 420 PUBLIC RELATIONS WORKSHOP 3.0 (3, 0, 0)** Practical study of public relations. Each student is involved in planning and directing a public relations program organization. Prerequisite: COM 203, 210, 320 and 401.

**COM 435 INTERNATIONAL BROADCASTING 3.0 (3, 0, 0)** Designed to familiarize students with international broadcasting systems and global communication issues. Lectures, research projects, and classroom presentation of international radio and television programming examples are used to broaden perspectives and international understanding. Prerequisite: COM 201 and 220.

**COM 440 COMMUNICATION LAW 3.0 (3, 0, 0)** Provides a background in communication law as it affects the conduct of the print and electronic media industries. Will study landmark cases and investigate legal industries and ethical issues which confront communication professionals. Prerequisite: COM 201.

**COM 450 (THT) SPECIAL PROJECTS 0.0 (0, 0, 0)** A project initiated by the student to increase his/her knowledge in an advanced area not offered as a regular class. Intensive study of a subject area under the guidance of a faculty member who has special expertise in that subject. Prerequisite: permission of instructor. May be taken for one through three credits, but not to exceed nine credits total.

**COM 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in section on Academic Policies.) May be taken for one, two or three credits at one time.

**DIT 111 INTRODUCTION TO NUTRITION 3.0 (3, 0, 0)** Introduces the science of nutrition, the nutrient needs of the body, and the foods that meet these needs.

**DIT 215 PRINCIPLES OF FOOD 3.0 (1, 0, 4)** Applies physical and chemical principles as related to the selection, preparation, and preservation of food.

**DIT 216 MEAL MANAGEMENT 3.0 (1, 0, 4)** A study of the principles of planning, preparation, and service of meals. Discussion of food sanitation, marketing, menu planning, and government regulations. Prerequisite: DIT 111 and 215 or permission of instructor.

**DIT 314 NUTRITION THROUGHOUT THE LIFE CYCLE 3.0 (3, 0, 0)** Nutritional requirements and assessment of humans from conception to old age, including the study of nutrition as it relates to health and disease common to each phase of the life cycle. The impact of societal and environmental factors on nutrient intake will be examined. Prerequisite: DIT 111 or permission of instructor.

**DIT 315 FOOD SERVICE ORGANIZATION AND MANAGEMENT 3.0 (3, 0, 0)** Management functions in the food service industry. Methods, procedures, and techniques in dealing with personnel. Prerequisite: DIT 215 and 216 or permission of the instructor.

**DIT 316 COMMUNITY NUTRITION 3.0 (3, 0, 0)** Addresses issues of nutrition services in the community including needs, assessment, implementation, and program evaluation. Provides opportunity for student to become familiar with WIC, school lunch, congregated meals, cooperative extension, etc. Prerequisite: DIT 111 or permission of instructor.

**DIT 410 DIET THERAPY 3.0 (3, 0, 0)** The study of the physiology of disease states, related nutritional implications and indicated dietary modifications. The role of the dietitian, as a member of the health care team, will be emphasized. Prerequisite: DIT 111, 215, 216, CHM 101 and 102.

**DIT 411 QUANTITY FOOD PRODUCTION 4.0 (4, 0, 0)** Quantity food production, menu planning, purchasing, receiving, and sanitation and safety techniques in food service. Laboratory experience in quantity food production. Prerequisite: DIT 215 and 216 or permission of instructor.

**DIT 417 SURVEY OF NUTRITION 3.0 (3, 0, 0)** Chemistry of nutrients, metabolism, and normal nutritional requirements throughout the human life cycle. Current research, nutrition myths, and assessment techniques are highlighted. Prerequisite: eight credits in Chemistry, three credits in foods and DIT 111.

**DIT 419 DIETETICS PRACTICUM 3.0 (3, 0, 0)** Students are employed or volunteer in a hospital or food service operation. A written description and an oral presentation of their experience is required. Equivalent of six weeks employment. Prerequisite: DIT 410 and 411 or permission of instructor and senior standing.

**ECO 101 PRINCIPLES OF MACROECONOMICS 3.0 (3, 0, 0)** An introduction to aggregate economics with emphasis on interdependence of sectors of an economy, aggregate concepts, determination of national income and fiscal and monetary policy for stabilization.

**ECO 102 PRINCIPLES OF MICROECONOMICS 3.0 (3, 0, 0)** Examines the mechanism of the free enterprise system; pricing, production, and employment under various market conditions; functional distribution of income; selected topics in modern theory of general equilibrium and welfare economics.

**ECO 204 HISTORY OF ECONOMIC THOUGHT 3.0 (3, 0, 0)** A study of economic ideas from the eighteenth century to the present. A brief review of physiocracy and mercantilism followed by a closer survey of classical liberalism, pre-Marxist and utopian socialism. Marxism, neoclassicism, institutionalism, and other contemporary developments. Prerequisite: ECO 101 and 102 or permission of instructor.

**ECO 205 CONTEMPORARY ECONOMIC PROBLEMS 3.0 (3, 0, 0)** Examination of some of our crucial economic problems: unemployment, inflation, poverty; also some of the minor issues: right-to-work, national debt, and of several international concerns, e.g., the Common Market. Prerequisite: ECO 101 and 102 or permission of instructor.

**ECO 301 INTERMEDIATE MACROECONOMIC THEORY 3.0 (3, 0, 0)** Develops models of the macroeconomy and analyzes the level and distribution of income, theories of unemployment, theories of consumption, theories of the public economy, theories of investment, the role of money, theories of crisis, theories of inflation, and theories of growth from alternative paradigms. A macroscopic view of the economy and the ability to analyze and forecast business conditions are developed. Prerequisite: ECO 101 and 102 or permission of instructor.

**ECO 302 INTERMEDIATE MICROECONOMIC THEORY 3.0 (3, 0, 0)** Introduction to the models and methods of modern microeconomic theory, concentrating on individual and firm decision making and on industry equilibrium; a brief treatment of general equilibrium theory and welfare analysis. Prerequisite: ECO 101 and 102 or permission of instructor.

**ECO 305 ECONOMETRICS 3.0 (3, 0, 0)** The orientation of this course is toward the analysis and interpretation of economic data. This course will examine the general linear regression model and its application to economics, including violations of the classical model assumptions.

**ECO 311 MONEY AND BANKING 3.0 (3, 0, 0)** An inquiry into the monetary system of the U.S. Brief examination of historical development; the functioning of monetary policy is considered. Emphasis is on the public/private nature of our banking system. Prerequisite: ECO 101 and 102 or permission of instructor.

**ECO 315 PUBLIC FINANCE 3.0 (3, 0, 0)** Investigates theories of taxation; normative and positive theories of the public economy; various taxes; tax incidence and the distribution of income and wealth; taxes and microeconomic behavior; and the distribution of expenditure benefits. Provides students with an understanding of the functions of taxation and public expenditures in the process of accumulation and legitimization. Prerequisite: ECO 101 and 102.

**ECO 321 COMPARATIVE ECONOMIC SYSTEMS 3.0 (3, 0, 0)** Comparative analysis of different ways that countries solve their fundamental economic problems. Covers all systems from capitalism to communism. Prerequisite: ECO 101 and 102 or permission of instructor.

**ECO 333 INTERNATIONAL ECONOMICS 3.0 (3, 0, 0)** A study of the economics aspects of international relations with particular emphasis on the economic basis for trade, international monetary problems, commercial policy, and international agencies and agreements. Prerequisite: ECO 101 and 102 or permission of instructor.

## **COURSE DESCRIPTION**

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**ECO 401 LABOR ECONOMICS 3.0 (3, 0, 0)** Equal consideration is given to the market and institutional factors of labor management relations. The role of government especially as defined in major legislation is examined. Historical development of trade unions serves as an introduction. Prerequisite: ECO 101 and 102 or permission of instructor.

**ECO 405 MATHEMATICAL ECONOMICS 3.0 (3, 0, 0)** An introduction to using mathematical tools in economic analysis. Prerequisite: ECO 101, 102 and MA 129 or permission of instructor.

**ECO 420 INDUSTRIAL ORGANIZATION 3.0 (3, 0, 0)** Examines the market structure, conduct, and performance in the unregulated sector of the American economy. Characteristics and economic problems of regulated public utilities is also studied, as well as, public policies related to promotion or restriction of competition. Prerequisite: ECO 101 and 102 or permission of instructor.

**ECO 450 INTERNSHIP 3.0 (0, 0, 0)** Designed to allow the student the opportunity to learn in a professional setting. It must involve the application of economic theory and provide an opportunity for work involving the application of academic skills. Consult an academic advisor for departmental internship policies. May be taken for three through twelve credits.

**ECO 485 MANAGERIAL ECONOMICS 3.0 (3, 0, 0)** A rigorous development and application of microeconomic theory with an emphasis on the tools and techniques most useful to managers in a decision making environment. Topics include demand analysis, production and cost analysis, market structure, pricing strategies, risk analysis, estimation and forecasting. Prerequisite: MA 125 and 170 or permission of instructor.

**ECO 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in section on Academic Policies.) May be taken for one, two or three credits at one time.

**ED 090 COLLEGE STUDY SKILLS 3.0 (3, 0, 0)** Designed to develop effective study skills for assignments or classes requiring listening, note-taking, test-taking, or library use and students needing assistance in effective use of college textbooks. DOES NOT COUNT TOWARD TOTAL CREDITS NEEDED FOR GRADUATION.

**ED 100 SCHOOLS AND SOCIETY 3.0 (3, 0, 0)** An exploration and examination of the critical issues/concerns facing public policy in education and demonstrating knowledge about education in today's society.

**ED 101 INTRODUCTION TO EDUCATION 1.0 (1, 0, 0)** Provides pre-professional experiences and information about fundamental concepts related to teaching and learning in elementary and secondary schools.

**ED 201 PERSONAL CAREER DEVELOPMENT 2.0 (2, 0, 0)** Designed as an overview of the world of work relevant to western society. Current theories of vocational development are explored and the students vocational development is investigated. Laboratory work involves the collecting, evaluating, classifying, and dispensing of occupational, educational, and social information.

**ED 202 SECONDARY PRE-PROFESSIONAL EXPERIENCE 2.0 (2, 0, 0)** Introduction to observation and participation in

the secondary schools, including a field experience component. Students will develop a greater understanding of the secondary school as a setting for teaching and learning. Prerequisite: ED 101.

**ED 301 EVALUATIVE TECHNIQUES 2.0 (2, 0, 0)** A basic testing and measurements course. Students study the domains of educational objectives, evaluation theory, the application of basic statistics to test data, and principles for selecting and interpreting standardized tests. Students will develop a test related to their area of teaching specialization.

**ED 302 INSTRUCTIONAL TECHNOLOGY 2.0 (2, 0, 0)** An introduction to both traditional and contemporary types of instructional media including micro-computers, interactive teleteaching, and telecommunications. Students demonstrate skill in the use, production, and operation of selected areas of this technology.

**ED 305 (PSY) EDUCATIONAL PSYCHOLOGY 3.0 (3, 0, 0)** A study of the application of learning theory principles to the educational and institutional setting. Provides demonstrations and field experiences to enhance the applicability of these principles. Prerequisite: PSY 101.

**ED 306 TUTORING IN THE EDUCATIONAL SYSTEM 3.0 (2, 2, 0)** Offers training in tutoring techniques for various subjects. Provides information in training, utilizing, and evaluating tutors in elementary and secondary classroom. Students participate in supervised tutoring sessions with college students.

**ED 310 BASIC READING PRACTICES FOR CONTENT AREA AND SPECIAL TEACHERS 3.0 (3, 0, 0)** Designed to provide instructional experiences that enable secondary content teaching candidates and special field teacher candidates to develop selected basic knowledge, skills, and attitudes regarding the reading learning process.

**ED 312 TEACHING SECONDARY ENGLISH LANGUAGE ARTS 3.0 (3, 0, 0)** Designed to prepare the student for the teaching of middle school/junior/senior high school English communication arts. In investigating the present resources of the school, the needs of the learners, and the potential for development in the field of English language study, the student will be preparing to function in either a traditional or experience-based school curriculum. Prerequisite: 2.5 QPA or permission of instructor.

**ED 313 TEACHING OF SCIENCE IN SECONDARY SCHOOLS 3.0 (3, 0, 0)** Designed to provide the framework on which prospective science teachers can build their teaching activities. Areas of study will include goals and objectives of secondary science education; a study of principles of learning, strategies and techniques, and the role of instructional materials in the classroom. Experience will include observation and participation. Prerequisite: 2.5 QPA or permission of instructor.

**ED 314 TEACHING OF MATHEMATICS IN SECONDARY SCHOOLS 3.0 (3, 0, 0)** Examines methods of teaching secondary school mathematics in the Information Age, the mathematics education reform movement, curricular changes and the standards for school mathematics, instructional methodology, use of materials, and development of skills required of secondary school mathematics teachers. Prerequisite: 2.5 QPA or permission of instructor.

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**ED 315 TEACHING OF SOCIAL STUDIES IN SECONDARY SCHOOLS** 3.0 (3, 0, 0) Provides a thorough background in the methods and materials for the teaching of social studies. Students will be involved in an observation-participation and teaching experience in classrooms and Living History programs at local and state parks. Prerequisite: 2.5 minimum QPA.

**ED 330 GUIDANCE AND COUNSELING TECHNIQUES** 3.0 (3, 0, 0) The responsibility of the teacher in the guidance program of the school; the identification of student problems; significant information and its use; techniques in guidance and counseling are explored.

**ED 400 STUDENT TEACHING** 12.0 (0, 0, 0) (By arrangement) Opportunity to apply knowledge and skills acquired in professional preparation. Accomplished by a field experience in university established centers under supervision of qualified cooperating teachers. Observations and conferences are scheduled by the departmental supervisor. Prerequisite 2.5 QPA.

**ED 401 HISTORY AND PHILOSOPHY OF EDUCATION** 3.0 (3, 0, 0) Foundations course in the study of professional foundations of education and the relationship that exists between the school and the society it serves. The course reviews cultural, historical, and educational milestones from the Greeks to modern time.

**ED 402 CONTEMPORARY ISSUES IN EDUCATION** 2.0 (2, 0, 0) A course preparing students for entering the teaching profession, first as a student teacher, and second as a beginning teacher. Emphasis is placed on issues and trends in education.

**ED 410 HISTORICAL AND CURRENT ISSUES IN EDUCATION** 3.0 (3, 0, 0) Foundations of the historical and philosophical bases of education in a democracy and the relationship that exists between the school and the society it serves. Reviews cultural, historical, and educational milestones from the Greeks to modern times, with specific focus on contemporary education. A major facet of the study will be how education can effect societal change with reference to futurists' predictions of demands and opportunities for education in the twenty-first century. Prerequisite: junior or senior standing.

**ED 420 BASIC PHOTOGRAPHY** 3.0 (2, 0, 1) A thorough introduction to the basic tools and creative techniques of black and white photography. Topics include operation and use of 35 mm camera and lens, exposure, film processing, printmaking, composition and design, and developing visual sensitivity.

**ED 421 TELEVISION PRODUCTION** 3.0 (2, 0, 1) Covers the fundamentals and principles involved in the production of television programs. Includes the operation of TV equipment, production of visuals used in TV, and the production of a program.

**ED 422 BASIC MOTION PICTURE PHOTOGRAPHY** 3.0 (2, 0, 2) Examines the process of planning and production of 8 mm and 16 mm films. Students plan the content for their films, select the treatment, film the subject, edit the film, add sound, and demonstrate the use of their film. Prerequisite: ED 420 or 421 or permission of instructor.

**ED 480 COMPUTERS IN EDUCATION** 3.0 (3, 0, 0) Designed to instruct undergraduate education majors in the various uses of computers in the schools.

**ED 482 COMPUTERS IN EDUCATION - METHODS AND MATERIALS** 3.0 (3, 0, 0) Designed to instruct undergraduate education majors in the design and organization of computer learning environments; and in the selection, utilization, and evaluation of courseware.

**ED 485 TEACHING OF ADULTS** 3.0 (3, 0, 0) Designed to identify characteristics and needs of various target groups choosing or needing to be involved in educational offerings for adults. Explores lifelong learning as a phenomenon relative to many societal influences, and develop programs, teaching modules, and units which serve both society and the individual.

**ED 488 DISTANCE LEARNING AND TELETEACHING** 3.0 (3, 0, 0) A survey and analysis of the distance learning movement in the United States with an emphasis on audiographics teleteaching.

**ED 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in section on Academic Policies.) May be taken for one, two or three credits at one time.

**ELE 185 ADVANCED READING/STUDY SKILLS** 2.0 (2, 0, 0) A program designed for students needing assistance in developmental reading.

**ELE 202 PRE-PROFESSIONAL EXPERIENCE** 2.0 (2, 0, 0) Provides sophomores with clinical experiences in elementary education which include identification and analysis of current educational practices, brief episodes of exploratory teaching, investigations of career possibilities and their requirements, an orientation to the Education Department and informal advisement seminars.

**ELE 300 BEGINNING SCHOOL YEARS** 2.0 (2, 0, 0) A study of the developmental needs of the young child, theoretical bases for major teaching functions, current trends in activities, teaching procedures and materials, and observation in neighboring schools.

**ELE 301 OBSERVATION AND PARTICIPATION IN ELEMENTARY EDUCATION** 3.0 (0, 1, 3) Provides juniors with the following observation, participation and professional guidance experiences: observation of an elementary classroom; orientation to policies and practices of an elementary school; opportunity to observe the in-service teacher in the performance of his/her duties; introduction to administrative duties of an elementary classroom; the privilege of working with individual children, small groups of children and an entire classroom under supervision; and the opportunity to receive feedback on performance from the cooperating teacher and the college supervisor. Prerequisite: 2.5 QPA.

**ELE 350 CHILD DEVELOPMENT** 3.0 (3, 0, 0) Examines development from conception and infancy, through preschool and middle school, and ends with adolescence. Major developmental theories that focus on the interaction of heredity and the environment are the key components.

**ELE 360 CHILDREN'S LITERATURE** 3.0 (3, 0, 0) Uses of children's literature in the preschool and elementary school curriculum; promoting interest in children's books; social themes and issues reflected in children's literature.

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**ELE 362 WHOLE LANGUAGE AND EMERGING LITERACY** 3.0 (3, 0, 0) Introduction to the whole language approach to supporting emerging literacy in preschool and primary grade classrooms. Both current practices and theoretical foundations will be surveyed. Will model whole language strategies and methods of evaluation. Prerequisite: ELE 360. Dual listed with 525.

**ELE 383 TEACHING OF READING IN THE ELEMENTARY SCHOOL** 3.0 (3, 0, 0) Theoretical bases of the reading process; components of reading skill; major approaches to instruction; methods and materials for teaching elementary reading are examined. Prerequisite: 2.5 QPA.

**ELE 384 TEACHING MATHEMATICS IN THE ELEMENTARY SCHOOL** 3.0 (3, 0, 0) Methods of teaching mathematics in the "Information Age", the reform movements curricular changes and emphasis, instructional methodology and use of materials, and development of mathematics skills required of elementary school teachers are examined. Prerequisite: 2.5 QPA.

**ELE 386 TEACHING OF SOCIAL STUDIES** 3.0 (3, 0, 0) Principles, problems, materials, and techniques for the teaching of elementary social studies. In-school experience provided. Prerequisite: 2.5 QPA.

**ELE 387 TEACHING OF SCIENCE** 3.0 (3, 0, 0) Principles, problems, materials, and techniques for the teaching of science in the elementary schools. Prerequisite: 2.5 QPA.

**ELE 400 STUDENT TEACHING** 12.0 (0, 0, 0) (By arrangement) Opportunity to apply knowledge and skills acquired in professional preparation. Accomplished by a field experience in university established centers under supervision of qualified cooperating teachers. Observations and conferences are scheduled by the departmental supervisor. Prerequisite: 2.5 QPA.

**ELE 402 SELECTED TOPICS IN ELEMENTARY EDUCATION** 0.0 (0, 0, 0) Designed to let students carry out in-depth studies in elementary teaching techniques. Includes lectures, seminar periods, and resource persons. Emphasis on student leadership, participation, and reading and discussion of educational literature. May be taken for one through three credits.

**ELE 403 COMMUNICATION SKILLS WORKSHOP FOR ELEMENTARY SCHOOL TEACHERS** 3.0 (3, 0, 0) Designed as a workshop for undergraduate students who have completed ELE 383 and for in-service classroom teachers. Emphasis is on investigating techniques used by elementary teachers to improve communication skills for children. Prerequisite: 2.5 QPA.

**ELE 405 EARLY CHILDHOOD CURRICULUM SEMINAR** 3.0 (3, 0, 0) Theoretical foundations of early childhood; planning including the classroom learning environment, schedules, goals, and thematic units; developmentally appropriate strategies for guiding children's learning and behavior; observing, recording, and evaluating; including parents and children with special needs. Prerequisite: ELE 301 and 362. Dual listed with 505.

**ELE 412 READING/WRITING IN BRITISH SCHOOLS** 3.0 (3, 0, 0) An examination of the integrated language arts curriculum employed in British education. This companion course to "Introduction to British Education" includes first-hand experiences observing and participating techniques used by British schools.

**ELE 425 DIAGNOSTIC AND REMEDIAL READING** 3.0 (3, 0, 0) Tests and techniques to prevent, detect, and correct reading difficulties; special methods and materials for problem readers. Prerequisite: ELE 383 or permission of instructor.

**ELE 488 INFORMAL DIAGNOSIS OF READINESS IN ELEMENTARY TEACHING** 3.0 (3, 0, 0) Designed to alert teachers to cognitive and affective factors which influence a child's readiness to learn. Emphasis is on informal assessment of cognitive and affective behavior as a basis for decisions about instruction for a child.

**ELE 489 ENVIRONMENTAL EDUCATION FOR ELEMENTARY TEACHERS** 3.0 (3, 0, 0) A study of the methods, materials, and science background necessary to teach environmental education. Emphasis is on both science content and psychological grade placement of various activities.

**ENG 045 CONVERSATIONAL AND WRITTEN ENGLISH FOR INTERNATIONAL STUDENTS** 3.0 (3, 0, 0) Designed to raise skills of international students in conversation and elementary English grammar so they are competent to function in classes at the university that are taught in English. Students learn and practice grammar, syntax, and idioms through written drills, oral exercises, and practice paragraphs. Open to students who score 515 or below on TOEFL test. Two hours a week are required in the language lab. meets 090 requirement. DOES NOT COUNT TOWARD TOTAL CREDITS NEEDED FOR GRADUATION.

**ENG 090 BASIC WRITING SKILLS** 3.0 (3, 0, 0) Designed to prepare students to do college-level writing. DOES NOT COUNT TOWARD TOTAL CREDITS NEEDED FOR GRADUATION.

**ENG 100 INTRODUCTION TO WOMEN'S STUDIES** 3.0 (3, 0, 0) Cross-disciplinary and cross-cultural examination of the ways that language, images, and socialization have constructed women's roles. Examines contemporary women's issues (work and family, sexuality, violence against women), as well as the women's movement and the role of women artists. Emphasis is on students (both female and male) working to discover the impact of these roles and issues in their own lives as well as in the larger world.

**ENG 112 COMPOSITION I** 3.0 (3, 0, 0) Intensive reading and writing of expository prose. Analytical and critical thinking and college-level research skills are emphasized. Prerequisite: Exemption from ENG 090 or equivalent transfer course.

**ENG 115 INTRODUCTION TO LITERATURE** 3.0 (3, 0, 0) Introduction to reading poetry, fiction, drama for understanding and enjoyment.

**ENG 202 CREATIVE WRITING** 3.0 (3, 0, 0) Explores the fundamentals of creative writing through the use of writing exercises and the discussion of selected stories, poems, and creative essays. Emphasis will be placed on a portfolio of work submitted at the end of the semester.

**ENG 203 READINGS IN ANCIENT LITERATURE** 3.0 (3, 0, 0) Introduction to some of the major characters, events, and ideas in the Greek, Roman, and Judeo-Christian mythologies that have so heavily influenced Western culture. (Mythology signifies the study of recurring patterns in thought and literature, not the separation of truth from fiction).

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**ENG 204 READINGS IN WORLD LITERATURE** 3.0 (3, 0, 0) Selected readings from nineteenth and twentieth century world literature, excluding British and American.

**ENG 207 READINGS IN BRITISH LITERATURE** 3.0 (3, 0, 0) Selected readings from British literature.

**ENG 208 READINGS IN AMERICAN LITERATURE** 3.0 (3, 0, 0) Selected readings from American literature.

**ENG 220 SPECIAL TOPICS IN LITERATURE** 3.0 (3, 0, 0) A study of one of the following topics: Black Literature, Women's Literature, other Minority Literature, Recent Literature, Film, and Folklore. May be repeated for a total of nine credits.

**ENG 224 INTRODUCTION TO LINGUISTICS** 3.0 (3, 0, 0) Methods of analysis and description of language and ways in which human beings use their language. Of interest to students who wish to continue study of linguistics as well as those in a variety of professions who wish to read with understanding linguistic literature in their own field. Offered fall of odd years.

**ENG 225 ENGLISH GRAMMAR** 3.0 (3, 0, 0) A systematic description of the rules of modern English grammar, making use of both traditional and contemporary grammatical theories. Offered spring semester.

**ENG 226 HISTORY OF THE ENGLISH LANGUAGE** 3.0 (3, 0, 0) A study of the development of the English language from Old English to modern times with special attention to the causes of linguistic change. Offered fall semester.

**ENG 230 WRITING FOR BUSINESS AND TECHNOLOGY** 3.0 (3, 0, 0) An intensive course of instruction and practice in report writing, business writing, and technical writing. Emphasis is on the particular writing needs of each student.

**ENG 305 COMPARATIVE LITERATURE** 3.0 (3, 0, 0) Examines major works in a genre or movement, comparing two or more national literatures. May be taken for a total of nine credits. Offered spring semester. Prerequisite: ENG 112.

**ENG 307 LITERATURE IN ENGLISH FROM AROUND THE WORLD** 3.0 (0, 0, 0) Study of literature written in English outside of the British Isles and the United States. Offered fall semester. Prerequisite: ENG 112.

**ENG 308 SURVEY OF BRITISH LITERATURE I** 3.0 (3, 0, 0) Survey of major British literature from Beowulf through Neoclassicism. Offered fall semester. Prerequisite: ENG 112.

**ENG 309 SURVEY OF BRITISH LITERATURE II** 3.0 (0, 0, 0) Survey of major British literature from the Romantics through the present. Offered spring semester. Prerequisite: ENG 112.

**ENG 310 SURVEY OF AMERICAN LITERATURE I** 3.0 (0, 0, 0) Survey of seventeenth, eighteenth, and early nineteenth century American writers. Offered fall semester. Prerequisite: ENG 112.

**ENG 311 SURVEY OF AMERICAN LITERATURE II** 3.0 (3, 0, 0) Survey of late nineteenth and twentieth century American writers. Offered spring semester. Prerequisite: ENG 112.

**ENG 312 INTRO TO FICTION WRITING** 3.0 (3, 0, 0) Designed to help students find their true voice and true concerns as writers while mastering the essentials of the art. Emphasis is on writing exercises and then complete works, but also on becoming better readers. In-depth discussion of student work, the assigned readings, and the process of writing. Prerequisite: ENG 202 or permission of instructor.

**ENG 313 COMPOSITION/LITERATURE II** 3.0 (3, 0, 0) Study of significant literary texts which serve as a basis for serious, thoughtful, mature writing. Must be passed with a minimum grade of "C-" before graduation. Prerequisite: Junior standing, 64 credits earned.

**ENG 314 INTRO TO POETRY WRITING** 3.0 (3, 0, 0) Designed to help students discover and develop their voices and styles as poets. Explore poetry writing through writing exercises, through reading and discussing poems written by contemporary poets, and through discussing one another's poems in a supportive atmosphere. Prerequisite: ENG 202 or permission of instructor.

**ENG 320 SPECIAL TOPICS IN LITERATURE** 3.0 (3, 0, 0) A specialized study of a topic in literature, film, or folklore. May be taken for a total of nine credits.

**ENG 324 COMPOSITION THEORY AND PRACTICE** 3.0 (3, 0, 0) Analysis of current theories about the writing process and methods of applying these theories, with actual practice in tutoring writing. Offered fall semester. Prerequisite: ENG 112 and 313.

**ENG 333 ADVANCED COMPOSITION** 3.0 (3, 0, 0) Designed for proficient writers to enhance and improve their composing skills through intensive expository writing. Offered spring semester. Prerequisite: ENG 112 and 313 or permission of instructor.

**ENG 350 OLD AND MIDDLE ENGLISH LITERATURE** 3.0 (3, 0, 0) Study of major British writers and works from the Anglo Saxon period to 1500 such as Beowulf, "The Wanderer" and "The Seafarer;" a selection of Middle English lyrics; a mystery play, Everyman, Sir Gawain and the Green Knight or The Pearl; a selection of tales from Chaucer's The Canterbury Tales and Malory. Offered fall of even years. Prerequisite: ENG 112.

**ENG 351 SIXTEENTH CENTURY BRITISH LITERATURE** 3.0 (3, 0, 0) Studies major British writers from 1500-1600, stressing such works as the prose of More, the Elizabethan translations of Plutarch (North) and Montaigne (Florio), the verse drama of Marlowe, and the poetry of Sidney, Spenser, and Shakespeare. Offered spring of even years. Prerequisite: ENG 112.

**ENG 352 SHAKESPEARE** 3.0 (3, 0, 0) Selected plays of Shakespeare with interpretation, evaluation, and attention to his development as a dramatist and poet. Offered fall semester.

**ENG 353 SEVENTEENTH CENTURY BRITISH LITERATURE** 3.0 (0, 0, 0) Studies major British writers from 1600 to 1660, focusing on such works as the religious lyrics of Donne and Herbert, the philosophical prose of Browne, Bacon, and Hobbes, the Cavalier libertinism of Herrick, Crew, and Rochester, and the canon of Milton's work, especially Paradise Lost. Offered fall of odd years. Prerequisite: ENG 112.

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**ENG 356 RESTORATION AND NEOCLASSIC BRITISH LITERATURE** 3.0 (3, 0, 0) Study of major British writers from 1660 to 1800 such as Dryden, Swift, Pope, Gay, Fielding, and Johnson. Offered spring of odd years. Prerequisite: ENG 112.

**ENG 357 BRITISH ROMANTIC LITERATURE** 3.0 (0, 0, 0) Studies major British writers from 1789 to 1830, such as Austen, Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats. Offered fall of even years. Prerequisite: ENG 112.

**ENG 359 VICTORIAN LITERATURE** 3.0 (3, 0, 0) Study of major British writers from 1830 to 1900, such as Dickens, G. Eliot, Tennyson, Browning, and Arnold. Offered fall of odd years. Prerequisite: ENG 112.

**ENG 360 TWENTIETH CENTURY BRITISH LITERATURE** 3.0 (3, 0, 0) Study of major British writers of the twentieth century, such as Yeats, Eliot, Joyce, Lawrence, Shaw, Beckett, and Pinter. Offered fall of even years. Prerequisite: ENG 112.

**ENG 362 AMERICAN ROMANTICISM** 3.0 (3, 0, 0) Study of major American Romantic writers, such as Emerson, Poe, Hawthorne, Melville, and Whitman. Offered spring of even years. Prerequisite: ENG 112.

**ENG 363 AMERICAN REALISM AND NATURALISM** 3.0 (3, 0, 0) Study of major American writers between the Civil War and World War II, such as Dickinson, Twain, James, Chopin, Crane, Wharton, and Dreiser. Offered fall of odd years. Prerequisite: ENG 112.

**ENG 364 TWENTIETH CENTURY AMERICAN LITERATURE** 3.0 (3, 0, 0) Study of major American writers since World War I, such as O'Neill, Fitzgerald, Cather, Faulkner, Hemingway, Frost, Stevens, and Williams. Offered spring of odd years. Prerequisite: ENG 112.

**ENG 382 THEORY OF LITERATURE** 3.0 (0, 0, 0) A survey of the major critical approaches to literature. Offered spring of even years. Prerequisite: ENG 112.

**ENG 401 SEMINAR IN ENGLISH STUDIES** 3.0 (3, 0, 0) A specialized and in-depth study of a major writer, a small group of related writers, a particular genre, or a specific limited time period from either American or British literature. May be taken for a total of nine credits. Prerequisite: ENG 112.

**ENG 411 ADVANCED FICTION WRITING** 3.0 (3, 0, 0) Through writing exercises, reading the work of published writers, and workshopping original manuscripts, students will work on creating a portfolio of short fiction. Students will, also, learn how to market their work. Prerequisite: ENG 313 or permission of instructor.

**ENG 412 ADVANCED POETRY WRITING** 3.0 (3, 0, 0) Study of poetry by contemporary poets. Presentations will be made about poets of student's choosing. Learn how to evaluate literary markets, how to prepare a manuscript to be submitted for publication, and develop a chapbook of poems. Prerequisite: ENG 314 or permission of instructor.

**ENG 414 CREATIVE NON-FICTION PROSE** 3.0 (3, 0, 0) Students will write about subjects of interest and importance to them using literary techniques and devices. Will read and discuss a selection of book-length non-fiction works: memoirs, dia-

ries, socio-political commentary, and nature writing. Writing techniques and exercises designed to stir creativity and stimulate ideas will be used. Prerequisite: ENG 312 or 314 or permission of instructor.

**ENG 416 NOVEL WRITING** 3.0 (3, 0, 0) Students will read and discuss published novels and work on writing their own, critiquing and discussing one another's work. Includes the first three chapters and a synopsis of the novel. Prerequisite: ENG 312 or permission of instructor.

**ENG 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in section on Academic Policies.) May be taken for one, two or three credits at one time.

**FM 201 APPAREL DESIGN ANALYSIS** 3.0 (3, 0, 0) Sketches fashion design for individual figure types. Studies principles related to fashion and display. Analyzes design in ready-to-wear, couture and specific needs. Surveys the fashion industry.

**FM 202 FASHION MERCHANDISING** 3.0 (3, 0, 0) Surveys buying and selling activities in fashion merchandising. Includes all aspects of planning, selecting, promoting, and evaluating merchandise of the fashion retailer.

**FM 203 FUNDAMENTALS OF CLOTHING CONSTRUCTION** 3.0 (1, 0, 4) Introduces pattern and fabric selection, construction techniques, and methods of fitting garments.

**FM 304 CLOTHING PRODUCTION, DISTRIBUTION AND CONSUMPTION** 3.0 (3, 0, 0) Studies the clothing field as an economic force. Analyzes fashion trends and their effect on production and distribution in manufacturing as these affect the consumer.

**FM 305 STRUCTURES AND PROPERTIES OF FIBERS** 2.0 (2, 0, 0) Studies the chemical and physical structures of fibers and the resulting properties.

**FM 306 FABRICS AND FINISHES** 3.0 (2, 0, 2) Relationship of fiber structure, fabric structure, and finishing processes to fabric performance. Laboratory evaluation of performance characteristics of textile products.

**FM 407 PROFESSIONAL SEMINAR** 2.0 (2, 0, 0) Prepares students to secure employment, to project a professional image in that position, and to advance in the company through leadership, management skills, networking, and effective office politics.

**FM 408 PRESENTATION TECHNIQUES** 2.0 (3, 0, 0) Emphasizes techniques of communication for the home economist in business. Evaluation of professional presentations and student presentations. Prerequisite: junior status.

**FM 409 SEMINAR AND FIELD EXPERIENCE** 4.0 (1, 0, 6) Preparation for an experience in cooperative program with textiles, apparel, or retail business.

**FR 101 INTRODUCTORY FRENCH I** 3.0 (3, 0, 0) For beginning students and those with less than two years of high school French. Emphasis is on grammar, pronunciation drills, aural comprehension, speaking, reading, and writing with language lab.

**FR 102 INTRODUCTORY FRENCH II** 3.0 (3, 0, 0) Continuation of FR 101 with language lab. Prerequisite: FR 101 or equivalent.

**FR 201 INTERMEDIATE FRENCH I** 3.0 (3, 0, 0) Reading texts, grammar review and further practice in aural comprehension, speaking, and writing with language lab. Prerequisite: three years of high school French or FR 102.

**FR 202 INTERMEDIATE FRENCH II** 3.0 (3, 0, 0) Continuation of FR 201 with language lab. Prerequisite: four years of high school French or FR 201.

**FR 205 PHONETICS PRONUNCIATION** 1.0 (1, 0, 1) Systematic pronunciation drill and phonetic transcription. Prerequisite: FR 102 or equivalent.

**FR 300 CONVERSATIONAL FRENCH CIVILIZATION** 3.0 (3, 0, 0) Designed to gain more fluency and develop writing skills. Examines socio-economic, political, and cultural topics. Prerequisite: FR 202 or equivalent.

**FR 305 ADVANCED FRENCH CONVERSATION** 3.0 (3, 0, 0) Continuation of FR 300. Students make oral commentaries and write reports.

**FR 306 TOPICS IN FRENCH CIVILIZATION (HISTORY)** 3.0 (3, 0, 0) A brief survey of French history, with particular attention to major events and personalities. Prerequisite: FR 202 or equivalent.

**FR 307 TOPICS IN FRENCH CIVILIZATION (GEOGRAPHY)** 3.0 (3, 0, 0) A study of the geography of French-speaking countries. Prerequisite: FR 202 or equivalent.

**FR 308 TOPICS IN FRENCH CIVILIZATION (AFRO-FRENCH LITERATURE AND CIVILIZATION)** 3.0 (3, 0, 0) A study of Black literature written in French in Africa and the West Indies. Prerequisite: FR 202 or equivalent.

**FR 309 TOPICS IN FRENCH CIVILIZATION (CONTEMPORARY PROBLEMS)** 3.0 (3, 0, 0) A study of the problems facing the people of French-speaking countries. Prerequisite: FR 202 or equivalent.

**FR 310 BUSINESS FRENCH** 3.0 (3, 0, 0) An introduction to French business and its terminology: a broad study of the commercial procedures in France with a concentration on the acquisition of the necessary vocabulary.

**FR 320 ADVANCED FRENCH STRUCTURE** 3.0 (3, 0, 0) A final review of the structure of French and study of short literary texts. Prerequisite: FR 202 or equivalent.

**FR 330 SURVEY OF FRENCH LITERATURE I** 3.0 (3, 0, 0) Selected readings of major French writers through the eighteenth century, outside readings and reports, literary movements, style and form. Prerequisite: FR 202 or equivalent.

**FR 331 SURVEY OF FRENCH LITERATURE II** 3.0 (3, 0, 0) Selected readings of major French writers since 1800; outside readings and reports, literary movements, style and form. Prerequisite: FR 202 or equivalent.

**FR 339 FRENCH LITERATURE OF THE MIDDLE AGES AND RENAISSANCE** 3.0 (3, 0, 0) Reading and discussion of the beginnings of French literature to the end of the 16th century. Prerequisite: FR 330 and 331 or permission of instructor.

**FR 340 FRENCH CLASSICAL LITERATURE** 3.0 (3, 0, 0) Critical readings and discussion of the major dramatic works of Corneille, Moliere and Racine with supplementary reading on general background. Prerequisite: FR 330 and 331 or permission of instructor.

**FR 341 FRENCH LITERATURE OF THE ENLIGHTENMENT** 3.0 (3, 0, 0) Reading and discussion of the works of Voltaire, Rousseau, and Diderot. Prerequisite: FR 330 and 331 or permission of instructor.

**FR 342 CURRENTS IN NINETEENTH-CENTURY FRENCH LITERATURE** 3.0 (3, 0, 0) The works of French authors as well as the main currents and form of literary expression from the beginning of Romanticism to the end of the century; Hugo, Balzac, Stendhal, Flaubert, and Zola. Prerequisite: FR 330 and 331 or permission of instructor.

**FR 343 ASPECTS OF TWENTIETH-CENTURY FRENCH LITERATURE** 3.0 (3, 0, 0) Development of the novel and modern French theatre: Gide, Alain-Fournier, Proust, Mauriac, Malraux, Sartre, Camus, Bernanos, St. Exupery, Green, and Ionesco. Reading and discussion of major works and a written report. Prerequisite: FR 330 and 331 or permission of instructor.

**FR 350 DEVELOPMENT OF FRENCH POETRY** 3.0 (3, 0, 0) A study of the major works of poets from Villon to the present. Emphasis on interpretation and diction. Study of the French poetic. Prerequisite: FR 330 and 331 or permission of instructor.

**FR 370-380 FOREIGN STUDY - CREDIT ARRANGED** 0.0 (0, 0, 0) Open to students who wish to continue the study of French abroad. The number of credits granted is based upon validated credentials presented to the department. Plans for foreign study should be submitted at least one semester prior to departure. Regulations regarding study abroad are available in the Office of the Provost/Vice President for Academic Affairs.

**FR 400 SENIOR SEMINAR - CREDIT ARRANGED** 0.0 (0, 0, 0) Special study projects in French language and literature; independent reading in the defined areas followed by written analytical reports in French. Open to seniors and in exceptional cases to juniors. Credit arranged.

**FR 405 HONORS COURSE FOR FRENCH MAJORS - CREDIT ARRANGED** 0.0 (0, 0, 0) An individual problems course. Open to qualified seniors with consent of the department. Credit arranged.

**FR 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in section on Academic Policies.) May be taken for one, two or three credits at one time.

**GEG 101 WORLD REGIONAL GEOGRAPHY** 3.0 (3, 0, 0) Regional study of the world with special emphasis on the diversity of human existence and the world-scale problems currently faced.

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GEG 102 HUMAN GEOGRAPHY 3.0 (3, 0, 0) Study of aspects and distribution of culture. Topics include: population, health, language, religion, and economic activities.

GEG 111 PHYSICAL GEOGRAPHY 3.0 (3, 0, 0) Introduces the earth-science component of geography. Topics include: earth-sun relationships, weather and climate, vegetation and soils, and landforms.

GEG 222 ENVIRONMENTAL ISSUES 3.0 (3, 0, 0) Surveys a wide range of environmental issues. Topics include: natural hazards, present and alternative energy sources, water resources and water pollution, waste disposal, and soil erosion.

GEG 300 GEOGRAPHIC RESEARCH 3.0 (3, 0, 0) Studies the techniques of research in geography and effective written and oral presentation of materials. A research paper is required.

GEG 312 WEATHER AND CLIMATE 3.0 (3, 0, 0) Studies the basic concepts of meteorology and climatology; causes and consequences of climatic change, both natural and man-induced; weather maps, both surface and upper-level; and selected topics germane to current environmental issues.

GEG 320 CARTOGRAPHY 4.0 (4, 0, 0) The principles and tools of basic cartography. Topics include: map projections, map design, and map production.

GEG 321 (GEL) GEOMORPHOLOGY 3.0 (3, 0, 0) Studies the major theories of how landforms and fluvial systems develop. Some discussion of implications regarding human use of the terrain. Dual listed with 515 Prerequisite: GEG 111 or GEL 121 or permission of instructor.

GEG 330 ADVANCED CARTOGRAPHY 4.0 (4, 0, 0) Class-laboratory experience with the application and utilization of modern tools and techniques of cartography and graphics. Emphasis on map design and reproduction.

GEG 340 (GEL) MAP AND AIR PHOTO INTERPRETATION 4.0 (4, 0, 0) Studies the interpretation of maps and aerial photographs. Topics include: location systems, scale, portrayal of relief, introductory surveying techniques, photogrammetry, interpretation principles, and specific applications.

GEG 350 URBAN GEOGRAPHY 3.0 (3, 0, 0) Analysis of the localization, structure, and function of urban settlements and their supporting areas.

GEG 351 POPULATION GEOGRAPHY 3.0 (3, 0, 0) Studies the spatial aspects of world population numbers, densities, and qualities; emphasizing the economic and social characteristics and mobility of the world's population.

GEG 360 ECONOMIC GEOGRAPHY 3.0 (3, 0, 0) Relates modern methods of geographic analysis to the study of population, resources, primary and secondary production, tertiary and quaternary activities, and international trade.

GEG 364 TECHNIQUES OF GEOGRAPHIC MEASUREMENT 3.0 (3, 0, 0) An introduction to the methods of geographic measurement, such as data-gathering and statistical-computerized analysis. Intended to familiarize students with more advanced methodologies of geographic research.

GEG 375 GEOGRAPHIC INFORMATION SYSTEMS 3.0 (3, 0, 0) An analysis of the emerging field of geographic information systems (GIS) and related technology with emphasis on both raster and vector data systems. Special emphasis is placed on practical applications. Prerequisite: GEG 430 suggested.

GEG 380 GEOGRAPHY OF THE UNITED STATES AND CANADA 3.0 (3, 0, 0) An analysis of the physical and human aspects of the United States and Canada. Particular emphasis on regionalism and regional problems.

GEG 381 GEOGRAPHY OF PENNSYLVANIA 3.0 (3, 0, 0) Analysis of the regional patterns of Pennsylvania. Topics include: topography, climate, waters resources, mineral resources, and the historical development of economic regions within the State.

GEG 412 (GEL) GLACIAL GEOLOGY 3.0 (3, 0, 0) An analytical study of glaciers and the Pleistocene epoch. The origins and mechanics of glacier motion and the landscape features produced during glaciation will be studied. Causes of ice ages and their distribution through geologic time and the methods of Pleistocene stratigraphy will also be considered. Prerequisite: GEL 121.

GEG 415 SPECIAL PROBLEMS IN GEOGRAPHY 2.0 (0, 0, 0) Offers extensive field experience and the opportunity to observe, first-hand, a variety of natural and human processes and phenomena. May be taken for two through four credits.

GEG 420 (GEL) REMOTE SENSING 3.0 (3, 0, 0) Examines color and color infrared aerial photography as well as Landsat, SPOT, Thermal and Radar imagery. Emphasis is on computer processing of Landsat data. Prerequisite: GEG 364 or MA 125 or permission of instructor.

GEG 430 MODERN CARTOGRAPHIC TECHNIQUES 3.0 (3, 0, 0) Map design and production using current computer-based techniques. Students will use a variety of software packages to design and produce maps. Prerequisite: GEG 320 or permission of instructor.

GEG 465 (BIO) SEMINAR IN ENVIRONMENTAL SCIENCE 1.0 (1, 0, 0) An upper-level seminar that integrates and applies concepts and skills taught in the basic courses of the Environmental Science emphasis.

GEG 496 INTERNSHIP 3.0 (0, 0, 0) Offers practical work experience and the opportunity to apply and further develop skills taught in the Geography Department. May be taken for three through twelve credits. Prerequisite: permission of instructor.

GEG 497 INDEPENDENT STUDY 0.0 (0, 0, 0) (See description in section on Academic Policies.) May be taken for one, two or three credits at one time.

GEG 499 HONORS COURSE 3.0 (3, 0, 0) Designed for upper-division students who qualify for independent research which will be conducted under the direction of a department faculty member.

GEL 102 ENVIRONMENTAL GEOLOGY 3.0 (3, 0, 0) The relationship of man to his environment will be examined with particular emphasis to problems of natural hazards (earthquakes, flooding, landslides), construction, ground water management,

resources, utilization, impact mitigation and geological planning.

**GEL121 PHYSICAL GEOLOGY 3.0 (2, 0, 1)** A study of the solid portion of the earth, the materials of which it is composed and the processes which are acting on it. Included are such topics as rocks and minerals, weathering, and geologic structure.

**GEL122 HISTORICAL GEOLOGY 3.0 (2, 0, 1)** A study of earth history using the principles of GEL 121. Includes theories of earth origin, fossils, geologic time, and the various techniques used to unravel geologic history.

**GEL321 (GEG) GEOMORPHOLOGY3.0 (3, 0, 0)** Studies major theories of how landforms and fluvial systems develop. Some discussion of implications regarding man's use of the terrain. Prerequisite: GEG 111 or GEL 121 or permission of instructor.

**GEL330 HYDROLOGY 3.0 (3, 0, 0)** Hydrology is the study of water in the geological environment. emphasis is on the occurrence, movement, quality, and quantity of groundwater; quantitative geologic and hydrologic methods are included.

**GEL332 MINERALOGY 3.0 (2, 0, 1)** A detailed study of minerals emphasizing their composition, origin, mode of occurrence, alteration, classification, and identification. Prerequisite: one year of college chemistry, which may be taken concurrently.

**GEL340 (GEG) MAP AND AIR PHOTO INTERPRETATION 4.0 (4, 0, 0)** Studies the interpretation of maps and aerial photographs. Topics include: location systems, scale, portrayal of relief, introductory surveying techniques, photogrammetry, interpretation principles, and specific applications.

**GEL341 PALEONTOLOGY 3.0 (2, 0, 1)** A detailed study of the fossil remains of animals. Special emphasis is given to the methods of studying fossils, the structures by which the fossils are identified, similarities of fossils to living organisms, and the significance of fossils.

**GEL351 STRUCTURAL GEOLOGY 3.0 (3, 0, 0)** The analysis of geologic structures and their causal mechanism is approached through applied physics and mathematics. Understanding of the simple geologic structures leads into the worldwide tectonic pattern and the concept of plate tectonics. Prerequisite: permission of instructor.

**GEL352 STRATIGRAPHY 3.0 (2, 0, 1)** An extensive study of the genesis and distribution of the sedimentary rocks and the reconstruction of the paleo-environment. Sedimentary processes and environments of deposition will be studied through detailed analysis of reference sections using the principles of correlation, facies change, tectonics, and paleontology. Prerequisite: permission of instructor.

**GEL401 FIELD TECHNIQUES IN GEOLOGY 3.0 (1, 0, 2)** A field-oriented course where the student learns actual data collection methods. Methods vary with the problem, but include planning field work, identifying and measuring all parameters of the outcrop and sampling techniques. Different surveying methods are used in locating outcrops. Interpretation of the field data is an integral part of the course.

**GEL412 (GEG) GLACIAL GEOLOGY3.0 (3, 0, 0)** An analytical study of glaciers and the Pleistocene epoch. The origins and mechanics of glacier motion and the landscape features produced during glaciation will be studied. Causes of ice ages and their distribution through geologic time and the methods of Pleistocene stratigraphy will also be considered. Prerequisite: GEL 121.

**GEL420 (GEG) REMOTE SENSING 3.0 (3, 0, 0)** Examines color and color infrared aerial photography as well as Landsat, SPOT, Thermal and Radar imagery. Emphasis is on computer processing of Landsat data. Prerequisite: GEG 340 recommended.

**GEL465 (BIO GEG) SEMINAR IN ENVIRONMENTAL SCIENCE 1.0 (1, 0, 0)** An upper-level seminar that integrates and applies concepts and skills taught in the basic courses of the Environmental Science emphasis.

**GEL497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in section on Academic Policies.) May be taken for one, two or three credits at one time.

**GER 101 INTRODUCTORY GERMAN I 3.0 (3, 0, 0)** For beginning students and those with less than two years of high school German. Elements of structure, reading and writing, intensive drill in pronunciation, aural comprehension, and speaking are examined. Language laboratory attendance is required one hour per week.

**GER 102 INTRODUCTORY GERMAN II 3.0 (3, 0, 0)** Continuation of GER 101. Language laboratory attendance is required one hour per week. Prerequisite: GER 101 or equivalent.

**GER 201 INTERMEDIATE GERMAN I3.0 (3, 0, 0)** A review of the structure of the German language with additional emphasis on listening comprehension, speaking, reading, and writing. Language laboratory attendance is required one hour per week. Prerequisite: two years of high school German, GER 102 or equivalent.

**GER 202 INTERMEDIATE GERMAN II 3.0 (3, 0, 0)** Continuation of GER 201. Increased emphasis on the development of the four language skills, using materials taken from actual cultural and literary selections. Language laboratory attendance is required one hour per week. Prerequisite: three years of high school German, GER 201 or equivalent.

**GER 205 PHONETICS AND PRONUNCIATION 1.0 (1, 0, 0)** A study of German phonetics, phonemics, pronunciation, intonation, and rhythm. The theory of the speech and articulatory mechanisms will be studied; extensive practice exercises. Prerequisite: GER 102 or equivalent.

**GER 300 CONVERSATIONAL GERMAN 3.0 (3, 0, 0)** Intensive oral practice in German for the development of a higher degree of fluency in the spoken language. Emphasis on topics of cultural, social, economic, and political nature. Prerequisite: GER 202 or equivalent.

**GER 305 ADVANCED GERMAN CONVERSATION 3.0 (3, 0, 0)** Intensive development of oral expression for students desiring a higher level of oral fluency. Emphasis is on enabling the student to carry on discussion in more detail and giving oral reports. Prerequisite: GER 202 or equivalent.

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**GER 320 ADVANCED GERMAN STRUCTURE 3.0 (3, 0, 0)** Study and practical application of the German structural patterns with concentration on the morphology and syntax of the language. Prerequisite: GER 202 or equivalent.

**GER 321 COMPOSITION AND STYLISTICS 3.0 (3, 0, 0)** Development of self-expression in writing. Emphasis is on simultaneous development of expression and stylistic writing. Frequent written assignments and at least one significant written assignment of a critical nature. Prerequisite: GER 202 or equivalent and recommendation of instructor.

**GER 330 SURVEY OF GERMAN LITERATURE I 3.0 (3, 0, 0)** Designed to acquaint the student with the major literary movements and representative writers of German literature from 1750. Prerequisite: GER 202 or equivalent.

**GER 331 SURVEY OF GERMAN LITERATURE II 3.0 (3, 0, 0)** Sequel to GER 330. A cross section of literary movements and significant writers from the earliest periods through 1750. Prerequisite: GER 202 or equivalent. GER 330 is recommended.

**GER 335 PROSEMINAR: DEUTSCHLANDKUNDE 3.0 (3, 0, 0)** Students will become acquainted with the political, educational, and economic makeup of modern Germany, including special problems of the German reunification. Contemporary German culture will also be examined in its context within society as a whole. In addition, practical aspects of everyday German life (public transportation, mail system, social behavior, etc.) are covered.

**GER 336 PROSEMINAR: LAENDER UND STAEDTE 3.0 (3, 0, 0)** Emphasis is on the cultural, economic, and social significance of each major geographical region along with main cities and tourist destinations in each. Students will also prepare individual presentations on an area that interests them.

**GER 337 PROSEMINAR: TWENTIETH CENTURY GERMAN LITERATURE 3.0 (3, 0, 0)** Major literary movements along with works or selections of works by representative authors will be the focus of this course. Techniques and terminology of literary analysis will be covered. Students will prepare a research project on a particular author, genre, or movement.

**GER 338 PROSEMINAR: NINETEENTH CENTURY GERMAN LITERATURE 3.0 (3, 0, 0)** Readings from principal authors of the 19th century will be used to analyze the various literary and social movements that characterized this period. Students will be expected to carry out a research project.

**GER 341 PROSEMINAR 3.0 (3, 0, 0)** Change topic. Prerequisite: GER 202 or equivalent competency, GER 320 preferred.

**GER 360 SEMINAR: GERMAN CULTURAL HISTORY 3.0 (3, 0, 0)** Survey of the cultural development of the German-speaking areas from the tribal migration period through the recent reunification. Emphasis is on literary, architectural, musical, scientific, and artistic achievements of each period and how these interact. Students will prepare several brief presentations and an in-depth project.

**GER 361 SEMINAR: EIGHTEENTH CENTURY GERMAN LITERATURE 3.0 (3, 0, 0)** Literary and social periods of the eighteenth century and texts by representative authors will be stressed. Students will gain exposure to older literary styles

and language usage. Each student will carry out a research project on one author or movement within the period.

**GER 362 SEMINAR: GERMAN LYRIC POETRY 3.0 (3, 0, 0)** A representative sample of lyric poetry from the earliest extant examples up to that of contemporary times. Students will be exposed to metrical analysis, poetic devices and forms, and terminology used in literary discussions of verse. Written project and smaller oral presentations required.

**GER 363 SEMINAR: THE GERMAN NOVELLE 3.0 (3, 0, 0)** This is a genre-study course that concentrates on the Novelle (longer short story or novelette) as it developed in the German-speaking countries. Authors studied are from the 19th and early 20th centuries, covering romanticism to realism.

**GER 364 SEMINAR: GERMAN DRAMA 3.0 (3, 0, 0)** Representative plays and theories of drama from each of the main literary movements will be studied in their social and artistic contexts. A research project will be required, part of which might be, depending upon wishes of the class, actual scenes for presentation to class or campus audience.

**GER 370-380 FOREIGN STUDY - CREDIT ARRANGED 0.0 (0, 0, 0)** "Strongly recommended for all German majors - especially those in the BSE program or who plan to pursue graduate work, but open to students of any major who wish to live and study in Germany." The number of credits granted is based upon validated credentials presented to the department. Plans for foreign study should be submitted at least one semester prior to departure. Regulations regarding study abroad are available in the Office of the Provost/Vice President for Academic Affairs.

**GER 400 SENIOR SEMINAR 3.0 (3, 0, 0)** Possible topics: works of one specific author (e.g., Böll, Brecht, Heine, Dürrenmatt, Goethe, Schiller, Grass); children's literature and fairy tales; literature of the former East Germany; introduction to Middle High German; history of the German language; introduction to comparative Germanic philology. Other topics possible if pre-arranged with instructor.

**GER 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in section on Academic Policies.) May be taken for one, two or three credits at one time.

**HON 100 HUMANITIES HONORS I 3.0 (3, 0, 0)** Introduction to the humanities by means of an interdisciplinary content drawn from literature, philosophy, theatre, music, art, and history.

**HON 101 HUMANITIES HONORS II 3.0 (3, 0, 0)** Continuation of HON 100.

**HON 201 SOCIAL SCIENCE HONORS 3.0 (3, 0, 0)** Introduction to the nature of scientific thought as applied in the social sciences. The world view common to the social sciences or the particular methodology of one of the basic social sciences will be examined.

**HON 497 INDEPENDENT STUDY (SENIOR PROJECT) 0.0 (0, 0, 0)** A full-length project in a student's major, involving the perspective of at least one other academic discipline. The project is supervised by a professor chosen by the student in collaboration with the Honors director. The project may be of a research, experimental, or performance nature and will be geared

towards a formal presentation of its results to the students and faculty of the Honors Program. May be taken for one through three credits.

**HPE100 HEALTH (PERSONAL AND COMMUNITY) 2.0 (2, 0, 0)** Includes health services, health instruction, and health environment dealing with contemporary principles, practices, and concepts serving personal, family, and community health.

**HPE101 BEGINNING SWIMMING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE102 BEGINNING BOWLING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE103 BEGINNING TENNIS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE104 BEGINNING BADMINTON AND TENNIS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE105 BEGINNING BADMINTON AND GOLF 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE106 BEGINNING ARCHERY 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE107 BEGINNING BILLIARDS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE108 BEGINNING RACQUETBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE109 BEGINNING SKIING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE110 BEGINNING GOLF 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE111 BASIC HORSEMANSHIP 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE112 TUMBLING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE113 SOFTBALL AND VOLLEYBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE114 ARCHERY AND VOLLEYBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE115 CONDITION AND BODY AWARENESS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE116 BASKETBALL AND SOCCER 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE117 BADMINTON AND RACQUETBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE118 RACQUETBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE119 AEROBIC AQUATICS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE120 BADMINTON AND TENNIS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE121 SOFTBALL - CONDITIONING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE122 CONDITION AND WEIGHT TRAINING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE123 BADMINTON AND VOLLEYBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE124 GYMNASTICS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

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**HPE125 FIELD HOCKEY AND RACQUETBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE126 FIELD HOCKEY 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE127 BEGINNING GOLF VOLLEYBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE128 AEROBIC CONDITIONING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE129 ARCHERY 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE130 GOLF 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE131 WALK LIFE FITNESS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE132 HYDROAEROBICS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE133 TRAIL RIDING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE134 BILLIARDS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE135 RACQUETBALL AND TENNIS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE136 RECREATIONAL SWIMMING ACTIVITIES 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE137 TENNIS AND VOLLEYBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE138 TENNIS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE139 SOFTBALL AND VOLLEYBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE140 RACQUETBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE141 BADMINTON AND RACQUETBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE142 BADMINTON AND TENNIS 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE143 INTERMEDIATE SWIMMING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE144 INTERMEDIATE SKIING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE145 INTERMEDIATE TENNIS AND VOLLEYBALL 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE146 INTERMEDIATE BOWLING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE147 ADVANCED BEGINNING SWIMMING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE148 ADVANCED SWIMMING 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE149 LIFEGUARD TRAINING 1.0 (0, 0, 1)** Designed to provide necessary minimum skills for a person to serve as a non-surf lifeguard. Reaching, throwing, wading and swimming rescue techniques. American Red Cross certification upon successful completion. Prerequisite: current Standard FirstAid and Adult CPR certification.

**HPE151 ADVANCED BADMINTON 1.0 (0, 0, 1)** Serves the individual with little or no experience in the activity selected. Emphasis on beginner-level fundamental skills in seasonal activities for individual, dual, and team sports.

**HPE164 AEROBIC CONDITIONING AND CPR 1.0 (1, 0, 1)** Foundations, design, and evaluation of individualized aerobic conditioning programs with a variety of activities and American Red Cross Community CPR.

**HPE203 PHYSICAL EDUCATION 1.0 (0, 0, 1)** Serves the individual with prior experience in the activity selected. Skills are evaluated and advanced skills and strategies utilized for the individual, dual, and team sports.

**HPE205 INTERCOLLEGIATE ATHLETICS 1.0 (0, 0, 1)** Course is designed as an upper-level skill class available only to individuals on varsity teams.

**HPE206 ATHLETIC TRAINING LAB I 1.0 (0, 0, 2)** An in-depth examination of the organization and administration of athletic training for the student seeking NATA certification. Clinical hours will be required to meet NATA standards. Prerequisite: Athletic training area of concentration and two semesters of experience as a student trainer.

**HPE207 ATHLETIC TRAINING LAB II 1.0 (0, 0, 2)** Examines all of the major muscles and the procedure for testing for injury to those muscles. Provides clinical work under the direct supervision of a licensed NATA certified trainer. Prerequisite: HPE 206.

**HPE225 WATER SAFETY INSTRUCTION 2.0 (1, 0, 1)** Provides students with the practical experience and knowledge needed to teach swimming beginning at the non-swimmer level up to advanced senior life saving. Prerequisite: completion of advanced life saving.

**HPE300 TECHNIQUES OF COACHING TRACK AND FIELD 3.0 (3, 0, 0)** Participation in actual training techniques in track and field. Planning and organizing equipment for a track program will be studied.

**HPE305 COACHING AND OFFICIATING WRESTLING 3.0 (3, 0, 0)** Practical training in wrestling fundamentals, strategy and the psychology of coaching, fundamentals of officiating, rule interpretation and preparation.

**HPE310 SPECIAL PHYSICAL EDUCATION FOR THE EXCEPTIONAL CHILD 3.0 (3, 0, 0)** A comprehensive analysis of the physically, emotionally, and socially handicapped student. Includes selected activities and achievement standards in the field of health, physical education, and athletics.

**HPE315 ATHLETIC TRAINING 3.0 (3, 0, 0)** Designed to provide experience in the application of various methods of treatment to athletic injuries. A study of preventive measures and medical management of athletic injuries.

**HPE320 BASIC FOOTBALL 3.0 (1, 1, 1)** Examines the methods, techniques, and psychology used in coaching football. Provide the prospective coach with knowledge of the personal problems in motivating and handling individual players.

**HPE330 COACHING BASKETBALL 3.0 (1, 1, 1)** Practical training in the areas of basketball fundamentals, individual and team play, strategy, and the psychology of coaching.

**HPE340 FIRST AID AND CPR (STANDARD AND ADVANCED) 3.0 (1, 1, 1)** Theory and application of the methods, techniques, and psychology used in first aid and safety. Basic, multi-media, SFAPS and CPR certification included.

**HPE341 ADVANCED FIRST AID AND CPR RECERTIFICATION 3.0 (3, 0, 0)** To provide advanced skills and knowledge when responding to first aid situations: to certify instructors where there is a need for basic first aid, multi-media first aid, and standard first aid and personal safety; to recertify current first aiders.

**HPE350 METHODS I, TEACHING HEALTH AND PHYSICAL EDUCATION IN ELEMENTARY SCHOOL 2.0 (2, 0, 0)** Principles, problems, materials, and techniques for conducting the health and physical education programs in the elementary schools.

**HPE360 KINESIOLOGY 3.0 (3, 0, 0)** Analysis of human motion based on anatomical and mechanical principles. Applications of mechanics to sports activity. Prerequisite: BIO 331 and 332.

**HPE370 PHYSIOLOGY OF EXERCISE 3.0 (3, 0, 0)** Critical analysis of physiological bases of muscular activity with special attention to general effects of exercise on body function. Prerequisite: BIO 331, 332 and HPE 360.

**HPE375 ADVANCED ATHLETIC TRAINING 3.0 (2, 0, 1)** An in-depth study of detailed orthopedic evaluation of injuries to athletes. Rehabilitation of specific major joints from post-op to competition will be studies. Prerequisite: HPE 206, 207 and 315.

**HPE376 ATHLETIC TRAINING LAB III 1.0 (1, 0, 0)** Examines the therapeutic modalities commonly used in the field of athletic training. Students in the area of concentration will be required to perform clinical work under the direct supervision of a licensed NATA certified athletic trainer. Prerequisite: HPE 206 and 207.

**HPE377 ATHLETIC TRAINING LAB IV 1.0 (1, 0, 0)** The use and misuse of prescription and non-prescription medication in athletics today. The student will be required to perform clinical work under the direct supervision of a licensed NATA certified athletic trainer. Prerequisite: HPE 376.

**HPE390 COACHING BASEBALL 3.0 (3, 0, 0)** Provides the knowledge, skills, and attitudes to prepare students to coach high school baseball programs dealing with organizational factors of coaching as well as the strategies and skills of the game.

**HPE420 HUMAN BEHAVIOR IN COACHING 3.0 (3, 0, 0)** Designed for the experienced coach as well as the future coach to acquire a better understanding of the most important and least understood aspect of athletics. Includes appropriate techniques to teach athletics to consciously affect motivational processes.

**HPE497 INDEPENDENT STUDY 0.0 (0, 0, 0)** independent study.

**HST 101 WESTERN CIVILIZATION I 3.0 (3, 0, 0)** A survey of significant ideas, events, and cultural developments in Western history from the emergence of ancient civilization to early modern times (circa 1660).

**HST 102 WESTERN CIVILIZATION II 3.0 (3, 0, 0)** A continuation of HST 101, beginning with the early modern times to the present, including the political, economic, and social forces which affect our world today.

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**HST 104 THE WORLD IN THE TWENTIETH CENTURY 3.0 (3, 0, 0)** A study of the forces and concepts operating in the modern world with emphasis on the trouble spots at the present time.

**HST 201 AMERICAN HISTORY THROUGH THE CIVIL WAR 3.0 (3, 0, 0)** A survey of American history covering the 17th-century colonization; independence and formation of the federal union; nationalism, sectionalism and growth of democracy in the 19th century; and the Civil War.

**HST 202 AMERICAN HISTORY - RECONSTRUCTION TO THE PRESENT 3.0 (3, 0, 0)** A continuation of HST 201, covering significant trends and events in the rise of modern industrial America, its emergence as a world power and events through the 1980's.

**HST 205 HISTORY OF SPORTS IN AMERICAN SOCIETY 3.0 (3, 0, 0)** Topics include: evolution of major sports, influence of organization and technology, critics of sports, racism, a comparison with sports in other countries, the role of women and labor relations within sports, sports in the school, and various sports heroes.

**HST 210 HERSTORY: THE AMERICAN SIDE OF WOMEN'S PAST 3.0 (3, 0, 0)** Explores the life stories, experiences, and thoughts of American women 1607-present. Themes are changing expectations of women and men in society, women in the labor force, and the equal rights movement.

**HST 215 INTRODUCTION TO THIRD WORLD 3.0 (3, 0, 0)** a general survey of the third world emphasizing the development of civilizations, religions, cultures, and politics and the various philosophies employed to understand the third world.

**HST 220 WORLD WAR II 3.0 (3, 0, 0)** The origin, background, and course of World War II and its effects upon world affairs. Deals with battles and the scientific, psychological, political, and economic impact of the war.

**HST 225 INTRO TO AMERICAN MILITARY HISTORY 3.0 (3, 0, 0)** We trace the American military experience from its European origins to the present time. The evolution of U.S. military history is examined along institutional and operational lines with emphasis on land warfare. Selected lessons complement this focus by showing developments in naval and air warfare, and by examining major trends in European military history.

**HST 232 AZTECS, INCAS, MAYAS 3.0 (3, 0, 0)** A study of the achievements, values, and organization of three Indian societies before the arrival of Columbus. Covers a number of multidisciplinary topics including the nature of societal evolution, the benefits of alternative systems of government and justice, the purpose of polytheistic religions, and the reasons for the decline of a civilization.

**HST 250 EAST EUROPEAN HISTORY 3.0 (3, 0, 0)** East European cultures, peoples, and states, with emphasis on the rise and development of national consciousness (1800-1950).

**HST 295 TOPICS IN HISTORY 0.0 (0, 0, 0)** A special area that is of current interest. May be taken for one through three credits.

**HST 300 HISTORIOGRAPHY 3.0 (3, 0, 0)** Introduces the student to the discipline, methods, and techniques of historical

research and writing. Examines the major interpretations of history and historiographical writings. Prerequisite: one history course or permission of instructor.

**HST 301 HISTORY OF COLONIAL AMERICA TO 1788 3.0 (3, 0, 0)** The exploration and settlement of North America with emphasis on the English colonies and their political, social, and economic developments. Prerequisite: one history course or permission of instructor.

**HST 302 CONSTITUTION TO MANIFEST DESTINY (1789-1850) 3.0 (3, 0, 0)** The movement for American independence and events during the Revolutionary War and early national period. Prerequisite: one history course or permission of instructor.

**HST 304 HISTORY OF THE CIVIL WAR AND RECONSTRUCTION 3.0 (3, 0, 0)** Sectional controversy; constitutional issues, secession and military conflict; the aftermath of the war, North and South, with emphasis on political development during reconstruction ending. Prerequisite: one history course or permission of instructor.

**HST 306 AMERICA BETWEEN THE WARS 3.0 (3, 0, 0)** American politics, diplomacy and society in World War I, the nervous Twenties, the Depression Decade, and World War II. Prerequisite: one history course or permission of instructor.

**HST 307 CONTEMPORARY AMERICA 3.0 (3, 0, 0)** American political, diplomatic, and social developments in the Atomic Era. Watergate, Viet Nam and Civil Rights are key points studied. Prerequisite: one history course or permission of instructor.

**HST 310 AFRO-AMERICAN EXPERIENCE 3.0 (3, 0, 0)** African heritage, Atlantic slave trade, American slavery, Civil War and Reconstruction, segregation and disfranchisement, the Harlem Renaissance, and Black Revolution, black resistance, and the quest for a black identity. Prerequisite: one history course or permission of instructor.

**HST 315 (SWK) HISTORY OF SOCIAL WELFARE IN AMERICA 3.0 (3, 0, 0)** The development of the public welfare systems as a mirror reflecting Americans' changing attitudes toward misfortune and relief. Centers upon a central issue of historical evaluation and contemporary policy: the appropriate balance between assistance-security and work-independence objectives in public welfare efforts. Prerequisite: one history course or permission of instructor.

**HST 340 THE ANCIENT WORLD 3.0 (3, 0, 0)** Growth and development of cultural, social, and intellectual foundations that formed the basis of our present institutions. Classical life and thought will be analyzed through a study of the great civilizations of Greece and Rome. Prerequisite: one history course or permission of instructor.

**HST 345 MIDDLE AGES: LIFE AND STYLE 3.0 (3, 0, 0)** The political, socio-economic, and cultural development of the civilization of Medieval Europe from the fall of Rome to the Medieval synthesis in the High Middle Ages. Prerequisite: one history course or permission of instructor.

**HST 346 RENAISSANCE AND REFORMATION 3.0 (3, 0, 0)** Political, social, economic, and cultural forces involved in the transition from Medieval Western society with attention to the

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rise of national states and the growth of individualism. Reformation is highlighted. Prerequisite: one history course or permission of instructor.

**HST 351 RISE OF MODERN ENGLAND 3.0 (3, 0, 0)** A survey of the social, political, economic, and constitutional themes that have shaped modern England since 1688. Prerequisite: one history course or permission of instructor.

**HST 359 RUSSIA: BEGINNING TO 1917 3.0 (3, 0, 0)** Russian historiography, nature, and development of the Russian Empire from the time of Peter I to the Revolution of 1917. Compares development of Russia with states and examines the roots underlying the modern Soviet state. Prerequisite: one history course of permission of instructor.

**HST 364 EUROPE IN THE TWENTIETH CENTURY - 1914-1939 3.0 (3, 0, 0)** Political, economic, and cultural developments in Europe in the twentieth century; attention is given to the factors involved in the two World Wars and their global impact and significance. First semester, 1914-1939; second semester, World War II and its aftermath. Prerequisite: one history course or permission of instructor.

**HST 365 EUROPE IN THE TWENTIETH CENTURY - WORLD WAR II AND ITS AFTERMATH 3.0 (3, 0, 0)** Political, economic, and cultural developments in Europe in the twentieth century; attention is given to the factors involved in the two World Wars and their global impact and significance. First semester, 1914-1939; second semester, World War II and its aftermath. Prerequisite: one history course or permission of instructor.

**HST 366 TWENTIETH CENTURY EUROPE 3.0 (3, 0, 0)** a study of the Political, economic, cultural, and international developments in Europe during the twentieth century. particular attention is given to the background problems which led to the two World Wars and their global impact and significance. Prerequisite: permission of instructor.

**HST 375 COLONIAL LATIN AMERICA 3.0 (3, 0, 0)** Colonial era focusing on pre-Columbian civilizations, the conquerors, the creation of Spanish and Portuguese institutions for mastery of a multiracial society, the reforms of the 18th century, and the independence struggles. Prerequisite: one history course or permission of instructor.

**HST 376 MODERN LATIN AMERICA 3.0 (3, 0, 0)** A modern period emphasizing the difficulty in creating a national self-identity, the impact of liberal and conservative philosophies on the 19th century, and the viability of revolutionary vs. non-revolutionary approaches to the problems of 20th-century Latin America. Prerequisite: one history course or permission of instructor.

**HST 385 HISTORY OF THE MIDDLE EAST 3.0(3, 0, 0)** The major political, economic, and cultural features of the Middle East with particular emphasis on modern colonialism in the area, Zionism, and the Arab States' contemporary relations with other nations. Prerequisite: one history course or permission of instructor.

**HST 386 HISTORY OF SOUTHEAST ASIA 3.0 (3, 0, 0)** Peoples and states of Southeast Asia, Burma, Thailand, Cambodia, Laos, Viet Nam, Malaysia, Indonesia, and the Philippines, and includes

the age of imperialism, colonialism, nationalism, and independence. Prerequisite: one history course or permission of instructor.

**HST 387 HISTORY OF EAST ASIA 3.0 (3, 0, 0)** Traditional cultures and institutions of China and Japan and their roles in Korea and Southeast Asia; the role of Western powers in China's development; post-war changes; United States foreign policy in relation to the Far East; and the emergence of Communist China and Modern Japan are discussed. Prerequisite: one history course or permission of instructor.

**HST 388 HISTORY OF AFRICA 3.0 (3, 0, 0)** After an introduction to the history of Africa prior to European colonization and a brief examination of colonialism on the continent, the course will focus on sub-Saharan Africa for the period from post World War II until the present, examining colonialism, nationalism, independence and continuing crises and problems of the nations of the continent. South Africa also will be emphasized. Prerequisite: one history course or permission of instructor.

**HST 389 VIETNAM WAR 3.0 (3, 0, 0)** Examines the historical, political, social, religious, and military aspects of the war. included will be the international aspects of the war and the effect of domestic concerns on the war effort. Prerequisite: HST 202 or permission of instructor.

**HST 401 HISTORY OF PENNSYLVANIA 3.0 (3, 0, 0)** The founding and development of Pennsylvania, emphasizing the social, political, and economic characteristics of the Commonwealth; the diversity of its people; local and family history is an important aspect. Prerequisite: one history course or permission of instructor.

**HST 406 THE WESTWARD MOVEMENT IN AMERICA 3.0 (3, 0, 0)** Settlement of the geographic areas and the influence of westward expansions on the political, social and economic development of the American people. Includes the trans-Mississippi West and role of the Plains Indian in American history. Prerequisite: one history course or permission of instructor.

**HST 415 MODERN AMERICAN DIPLOMACY 3.0 (3, 0, 0)** Explores american diplomacy from the spanish american war through recent events. included are the techniques, purposes, and problems of diplomacy. Prerequisite: HST 202 or permission of instructor.

**HST 430 THE AMERICAN INDIAN: FROM BERING TO RED POWER 3.0 (3, 0, 0)** Covers the origins, culture, and history of the American Indian. The development of Indian policy by colonial rulers and the United States is studied and compared. Problems of assimilation and cultural conflict resulting from removal as well as modern Indian problems. Prerequisite: one history course or permission of instructor.

**HST 444 INTRODUCTION TO HISTORICAL MUSEUMS, PRESERVATION AND SOCIETIES 3.0 (3, 0, 0)** Provides a broad background regarding museum work, historical societies and their function, and historical preservation. Prepares students for internships and potential careers in the field of museumology and preservation. Prerequisite: one history course or permission of instructor.

**HST 450 INTERNSHIP 3.0 (0, 0, 0)** Provides pre-professional skills. Museum and archival work are examples of areas in which

## COURSE DESCRIPTION

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students can bring together academic training and practical experience. Prerequisite: permission of department chairperson, sponsoring instructor, and an agency. May be taken for three through twelve credits.

**HST 451 FRANCE: FROM THE REVOLUTION TO THE PRESENT 3.0 (3, 0, 0)** Introduction to the social, political, economic, and constitutional themes that have shaped modern France since 1789. Prerequisite: one history course or permission of instructor.

**HST 458 THE SOVIET UNION 3.0 (3, 0, 0)** Study of the Bolshevik Revolution and the founding of the Soviet Union with emphasis on the internal and external factors involved in world communism and Soviet power politics. Prerequisite: one history course or permission of instructor.

**HST 470 HISTORY OF MEXICO 3.0 (3, 0, 0)** Explores pre-Columbian civilizations to the present. Studies the interaction of various racial groups, the formation of a distinct Mexican national identity, and Soviet power politics. Prerequisite: one history course or permission of instructor.

**HST 496 SEMINARS ON SELECTED TOPICS 3.0 (3, 0, 0)** In-depth knowledge of historical methodology and research. Significant historical problems are selected for oral discussion. Prerequisite: one history course or permission of instructor.

**HST 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in section on Academic Policies.) May be taken for one, two or three credits at one time.

**ID 201 INTERDISCIPLINARY STUDIES 3.0 (3, 0, 0)** Topics to be offered will vary. Studies involving more than one department or discipline shall be offered; course(s) may be applied to any of the five areas in general education or with departmental approval may be applied to the major. Specific topics will be announced each semester prior to registration; consult such announcements for meeting hours, prerequisites, and other details.

**JN 100 JOURNALISM 3.0 (3, 0, 0)** Fundamentals of reporting, editing, and writing feature articles. Emphasis on news evaluation, style, and structures of news stories.

**JN 200 CRISIS REPORTING 3.0 (3, 0, 0)** Critical examination of the way major current issues are handled by the various media. Practice in writing, investigating, and interviewing. Prerequisite: JN 100.

**JN 210 MEDIA DESIGN 3.0 (3, 0, 0)** Studies the principles of newspapers, magazine, book, and television design. Practice in designing pages for the print media and in writing copy for programs for the electronic media. Prerequisite: JN 100.

**JN 249 CRIMINAL JUSTICE AND THE PRESS 3.0 (3, 0, 0)** Instruction in reporting police news. Emphasis will be given to the examination and evaluation of the contrasting viewpoints of reports, law enforcement officials, and the accused in the development and content of news stories. Prerequisite: CJA 100 and PSC 101.

**JN 310 INTERPRETATIVE JOURNALISM 3.0 (3, 0, 0)** Examines the content, style, and techniques of contemporary interpretative news reporting propaganda, ethics, and editorial columns. Practice in writing interpretative articles. Prerequisite: JN 100.

**JN 320 CREATIVE JOURNALISM 3.0 (3, 0, 0)** Introduces the theory and practice of the New Journalism. Students will explore the culture and resources of the region, gathering materials for publishable articles. Prerequisite: JN 100.

**JN 330 PRESS PERFORMANCE 3.0 (3, 0, 0)** Evaluates the role of the contemporary American press in a modern democracy. Such problems as violence, sensationalism, and political bias will be investigated. Prerequisite: JN 100.

**JN 495 INTERNSHIP 0.0 (0, 0, 0)** An "internship" or work with local newspaper. Practice working on a publication, with attention given to the student's journalistic interest (news reporting, photography, editing) and the major aspects of production. May be taken for one through twelve credits. Prerequisite: JN 100.

**MA 090 BASIC ALGEBRA 3.0 (3, 0, 0)** Introduction to basic algebra. Topics include real numbers, linear equations, formulas, exponents, polynomials, factoring, rational expressions and equations, graphing, systems of equations, radicals, word problems, and applications. DOES NOT COUNT TOWARD TOTAL CREDITS NEEDED FOR GRADUATION.

**MA 104 INTERMEDIATE ALGEBRA 3.0 (3, 0, 0)** Topics include factoring, algebraic functions, exponents and radicals, linear and quadratic equations, inequalities, linear systems, graphic techniques and word problems. Prerequisite: MA 090 or equivalent. THIS COURSE IS NOT APPROVED FOR GENERAL EDUCATION.

**MA 115 SURVEY OF MATHEMATICAL IDEAS 3.0 (3, 0, 0)** A liberal arts course designed to acquaint the student with the nature and scope of modern mathematics. Emphasis is on concepts and understanding rather than the acquisition of technique. Topics included are suitable for the non-science liberal arts student. No extensive background in algebra is required.

**MA 117 MATHEMATICS AND CULTURE 3.0 (3, 0, 0)** Readings and discussions about mathematics and mathematicians. Designed to introduce the student to the role of mathematics in culture. This is not a course in practical mathematics; it is not designed to improve mathematical skills. It attempts to give a better understanding of what mathematics is and if it is important. In doing this students will frequently be involved in discussions of the closely related fields of history, science, and philosophy.

**MA 125 INTRODUCTORY STATISTICS 3.0 (3, 0, 0)** A survey of basic statistical methods for analyzing data. Topics include descriptive statistics, probability, sampling, point and interval estimation, hypothesis tests, linear regression, correlation, and non-parametric tests.

**MA 127 INTRODUCTION TO COMPUTER PROGRAMMING 3.0 (3, 0, 0)** Fundamentals of programming applied to the university computer. Use of computer language to solve practical problems pertinent to science, business, and other disciplines. Laboratory includes use of the terminals and the university computer.

**MA 129 FINITE MATHEMATICS 3.0 (3, 0, 0)** An initial treatment of those topics in basic mathematics that are of special importance in business and the social sciences. Topics included are logic, sets and counting techniques, probability, mathemati-

cal models, linear equations and inequalities, introduction of linear programming, and matrices, also Markov Chains and Game Theory.

**MA 165 PRE-CALCULUS MATHEMATICS 3.0 (3, 0, 0)** Intended to prepare students for the study of calculus. Topics include functions, graphs, polynomial and rational functions, exponential and logarithmic functions, trigonometric functions and analytic trigonometry. Prerequisite: MA 104 or equivalent.

**MA 170 FUNDAMENTAL CONCEPTS OF CALCULUS 3.0 (3, 0, 0)** The fundamental concepts of calculus is for non-physical science majors utilizing the basic techniques of differential and integral calculus. Not available to students who have completed MA 231. Prerequisite: MA 104 or equivalent.

**MA 180 PROGRAMMING FOR THE MATHEMATICAL SCIENCES 3.0 (3, 0, 0)** Basic concepts of applications and approximations of the ideas of limit, continuity, and differentiability. Also, the standard concepts of applied mathematics such as error analysis, polynomial interpolation, and solution of linear and nonlinear equations. The computer will be used as an aid to investigating these areas. Prerequisite: MA 170 or 231.

**MA 203 TOPICS IN ALGEBRA AND GEOMETRY 3.0 (3, 0, 0)** A study of the basic ideas and structure in modern arithmetic, algebra, and geometry.

**MA 231 CALCULUS I 4.0 (5, 0, 0)** The purpose of this course is to develop a good understanding of the derivative and its uses, to introduce the definite integral, and to establish the important relationship between the derivative and the definite integral. This course is intended for mathematics, science, and engineering majors. Prerequisite: MA 165 or placement by the mathematics department.

**MA 232 CALCULUS II 4.0 (5, 0, 0)** This is a continuation of 231 and is intended to develop a good understanding of the definite integral and its uses, and to develop basic integration techniques. Differential equations, taylor polynomials, and series are also covered. Prerequisite: MA 231 or equivalent.

**MA 233 CALCULUS III 4.0 (5, 0, 0)** This is a continuation of 232 and the purpose of this course is to investigate functions of two or more variables. Topics include graphing functions of two or more variables, partial derivatives, vectors, optimization, double and triple integrals, and line and surface integrals. Prerequisite: MA 232 or equivalent.

**MA 260 DISCRETE STRUCTURES 3.0 (3, 0, 0)** Foundations of mathematics, emphasizing fundamental concepts in abstract mathematics and deductive reasoning. Topics will include logic, Boolean algebra, sets, functions, relations, cardinality, number systems, abstract systems, and algorithms. Prerequisite: MA 231.

**MA 280 LINEAR ALGEBRA AND MATRIX THEORY 3.0 (3, 0, 0)** Topics: geometry of vectors, matrix algebra and operations, solutions of general systems of linear equations, inversion of matrices, determinants, vectors and vector spaces, subspaces, linear independence, bases and dimension, linear transformations, characteristics roots and vectors, and applications. Prerequisite: MA 232.

**MA 301 SURVEY OF MATHEMATICAL MODELS 3.0 (3, 0, 0)** A survey of different math models, some deterministic and

some stochastic, requiring no calculus background, designed to show non-trivial applications. Computer use is emphasized. Prerequisite: MA 125, 127, 129 or 180.

**MA 304 HISTORY AND PHILOSOPHY OF MATHEMATICS 3.0 (3, 0, 0)** A study of the chronological development of facets of mathematics that have contemporary importance. The historical and philosophical background of each facet is integrated with experience in mathematical study and application. Emphasis is placed on great contributors of mathematics, their contributions, and their methods of reasoning. Prerequisite: MA 260.

**MA 308 OPERATIONS RESEARCH 3.0 (3, 0, 0)** Examines the development and use of the techniques of research. Topics include linear programming, queuing theory, probabilistic inventory models, and simulation. Prerequisite: MA 180, 232, 280.

**MA 310 NUMERICAL ANALYSIS 3.0 (3, 0, 0)** A study of numerical methods for the solution of algebraic, transcendental, and differential equations, numerical integration and differentiation, and error analysis. Prerequisite: MA 127 or 180, 232.

**MA 311 DIFFERENTIAL EQUATIONS I 3.0 (3, 0, 0)** Techniques for solving ordinary differential equations, superposition principle, existence and uniqueness theorem, applications. Prerequisite: MA 232 & 233 (which may be taken concurrently).

**MA 312 DIFFERENTIAL EQUATIONS II 3.0 (3, 0, 0)** Additional work in partial differential equations and boundary value problems, numerical methods, qualitative treatment of differential equation in phase plane, stability issues. Prerequisite: MA 311, 233, 280 (which may be taken concurrently).

**MA 314 APPLIED PROBABILITY AND STATISTICS 3.0 (0, 0, 0)** An introduction to applications of descriptive and inferential statistics and probability. Frequency distributions, measures of location and variation, probability, expected value, and decision making; probability distributions, sampling and sampling distributions; inferences concerning means, standard deviations, and proportions; analysis of variance, non-parametric methods, regression, correlation, planning surveys and experiments. Prerequisite: MA 170 or 232.

**MA 315 APPLIED REGRESSION ANALYSIS 3.0 (3, 0, 0)** Simple and multiple regression will be used to analyze data. Residual analysis, indicator variables, and step-wise and polynomial regression. Computer software will be used to analyze data. Prerequisite: MA 125 or 314.

**MA 324 APPLIED MATHEMATICS 3.0 (3, 0, 0)** Illustrates the principles and basic styles of thought in solving physical problems by mathematical methods. Particle dynamics, heat and fluid flow, wave equations, vector, Fourier and tensor analysis. Prerequisite: MA 232, 280.

**MA 329 MODERN GEOMETRY I 3.0 (3, 0, 0)** An introduction to the foundations of geometry with emphasis on the axiomatic development of the Euclidean system. Prerequisite: MA 260.

**MA 330 MODERN GEOMETRY II 3.0 (3, 0, 0)** The foundations of geometry with emphasis on non-Euclidean axiomatic structures. Prerequisite: MA 329 or permission of instructor.

**MA 332 APPLIED COMBINATORICS 3.0 (3, 0, 0)** Applied discrete mathematics emphasizing combinatorics and graph theory.

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Topics will be chosen from counting methods, generating functions, recurrence relations, inclusion-exclusion, the polya enumeration formula, graph theory, covering circuits, trees, and searching and network algorithms. Prerequisite: MA 231.

**MA 335 NUMBER THEORY 3.0 (3, 0, 0)** An analytical study of basic concepts including divisibility, congruence, quadratic reciprocity and Diophantine equations. Varied methods are stressed. Prerequisite: MA 232, 260.

**MA 345 REAL ANALYSIS I 3.0 (3, 0, 0)** The real number system. Emphasis on the concepts and theoretical approach to calculus: functions, sequences, series, limits, continuity, derivatives, the Riemann integrals, and sequences of functions. Prerequisite: MA 233, 260.

**MA 346 REAL ANALYSIS II 3.0 (3, 0, 0)** A continuation of MA 345. Prerequisite: MA 345.

**MA 348 COMPLEX VARIABLES 3.0 (3, 0, 0)** A first course in complex variables. Complex numbers, analytic functions, elementary functions, mappings by elementary functions, integrals, power series, residues, poles, and conformal mappings. Prerequisite: MA 233.

**MA 361 MODERN ALGEBRA I 3.0 (3, 0, 0)** Sets, rings, integral domains, fields, groups, polynomials, congruences, algebra or classes, mappings, homomorphisms and isomorphisms. Prerequisite: MA 180 or permission of instructor.

**MA 362 MODERN ALGEBRA II 3.0 (3, 0, 0)** A continuation of MA 361 consisting of a more detailed study of groups, rings, ideals, fields, and selected topics. Prerequisite: MA 361.

**MA 371 MATHEMATICAL STATISTICS I 3.0 (3, 0, 0)** Distributions of discrete and continuous random variables, expected values and moments, conditional probability and independence, special discrete and continuous distributions. Prerequisite: MA 233.

**MA 372 MATHEMATICAL STATISTICS II 3.0 (3, 0, 0)** Interval estimation, order statistics, point estimation, tests of hypotheses. Prerequisite: MA 371.

**MA 381 TOPOLOGY 3.0 (3, 0, 0)** Introduction to point-set topology. Set theory, metric spaces, topological spaces, connectedness, and compactness. Prerequisite: MA 232, 260.

**MA 401 SELECTED TOPICS 3.0 (3, 0, 0)** Selections from topology, algebra, real analysis, matrix theory, computer science or other junior or senior level topics. Active participation by the student is required. Prerequisite: permission of instructor.

**MA 402 SEMINAR 1.0 (0, 0, 0)** Papers from the American Mathematical Monthly, comparable journals, and various references will be presented and discussed by the students. Continuous reading and participation will be required. May be taken for one through six credits. Prerequisite: permission of instructor.

**MA 450 INTERNSHIP 3.0 (0, 0, 0)** Provides pre-professional skills to interested majors. Business, industry, educational or research work are examples of areas in which students can bring together academic training and practical experience. May be taken for three through twelve credits. WILL NOT COUNT TOWARD THE MAJOR.

**MA 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in section of Academic Policies.) May be taken for one, two or three credits at one time.

**MAP 101 VOICE CLASS I 1.0 (1, 0, 1)** Develops proper vocal production, poise, and confidence in solo singing. Remedial work for individual problems.

**MAP 102 VOICE CLASS II 1.0 (1, 0, 1)** Continuation of Voice Class I. Prerequisite: MAP 101.

**MAP 103 ADVANCED VOICE CLASS 1.0 (1, 0, 0)** Instruction in voice will be given on a level beyond beginning voice class (MAP 101 and 102). Goals of the course: to improve technique, quality, and artistry of individual voices; and to focus class attention on common vocal problems and their remediation.

**MAP 111 INTRODUCTION TO THE PIANO 1.0 (0, 0, 2)** Designed to give non-music majors with no previous keyboard experience an opportunity to learn the very basics of piano playing.

**MAP 112 BEGINNING PIANO CLASS 1.0 (1, 0, 1)** Remedial piano study for those unable to meet entrance requirements.

**MAP 113 CLASS PIANO I 1.0 (1, 0, 1)** For the student with limited piano skill. Prerequisite: ability to perform with reasonable fluency at least five pieces from the last pages of any standard first grade instruction book (such as Thompson, Schaum, Fletcher, Kasschau, et al.), and to play at sight pieces from the first half of a similar book.

**MAP 114 CLASS PIANO II 1.0 (1, 0, 1)** Designed for the music major who might reach the level of skill required by the first proficiency examination. May be taken for a total of three credits. Prerequisite: MAP 113.

**MAP 115 ADVANCED PIANO CLASS 1.0 (0, 0, 2)** Designed for the music education vocal concentration major. Development of advancing piano skills to reach the level of the Third Proficiency. Prerequisite: Passing of the First Proficiency Examination or audition.

**MAP 131 WOODWIND CLASS I 1.0 (1, 2, 0)** Studies the fundamental principles and techniques necessary for playing and teaching the flute and clarinet; study of the literature appropriate for beginning class instruction.

**MAP 132 WOODWIND CLASS II 1.0 (1, 2, 0)** Studies the fundamental principles and techniques necessary for playing and teaching the saxophone, oboe, and bassoon; study of the literature appropriate for beginning class instruction.

**MAP 133 ADVANCED WOODWIND CLASS 1.0 (0, 1, 0)** Instruction in woodwind instruments on a level beyond that of the beginning courses. Introduces more scales, more advanced work with embouchure, tone, tonguing. Suitable literature for the various instruments.

**MAP 141 BRASS CLASS I 1.0 (1, 2, 0)** Studies the fundamental principles and techniques necessary for playing and teaching the trumpet and horn; study of the literature appropriate for beginning class instruction.

**MAP 142 BRASS CLASS II 1.0 (1, 2, 0)** Studies the fundamental principles and techniques necessary for playing and

teaching the trombone, euphonium, and tuba; study of the literature appropriate for beginning class instruction.

**MAP 143 ADVANCED BRASS CLASS** 1.0 (0, 1, 0) Instruction in brass instruments on a level beyond that of the beginning courses. Scales in various articulations and ranges, more advanced technical work and styles, suitable literature for the various instruments.

**MAP 151 STRING CLASS I** 1.0 (1, 2, 0) Acquaints the non-string player with the basic elements of string instrument playing. Instruction in various instruments, fundamentals of correct playing, and familiarity with problems of class instruction in typical elementary school string classes.

**MAP 152 STRING CLASS II** 1.0 (1, 2, 0) Continuation of MAP 151. Students specialize on violin, viola, cello, or bass. Presents keys up to four sharps and two flats with corresponding fingering problems. Introduces bass players to various positions, and cello players to extended second finger pattern. Introduces various staccato bowing patterns. Violin and viola students practice simple third position exercises. Principles of vibrato presented.

**MAP 153 ADVANCED STRING CLASS** 1.0 (0, 1, 0) Instruction in stringed instruments on a level beyond that of the beginning courses. Introduces scales in various positions, more advanced work with the various staccato and spiccato bowings. Suitable literature for the various instruments.

**MAP 157 GUITAR CLASS I** 1.0 (1, 1, 0) Beginning study of the guitar. Functional use of the guitar in the music classroom. Accompanying singing.

**MAP 158 GUITAR CLASS II** 1.0 (1, 1, 0) Continuation of MAP 157. More advanced work in techniques and corresponding literature.

**MAP 161 PERCUSSION CLASS** 1.0 (1, 1, 0) Studies the characteristics for the various percussion instruments; performance techniques: development of performing ability necessary to teach the percussion instruments at the elementary and secondary level of instruction.

**MAP 163 ADVANCED PERCUSSION CLASS** 1.0 (0, 1, 0) Instruction in percussion instruments on a level beyond that of the beginning course. Introduces more advanced work with the various percussion instruments. Suitable literature for various instruments.

**MAP 200 VOICE SECONDARY** 1.0 (0, 0, 0) Voice secondary - 1/2 hour lesson.

**MAP 210 PIANO SECONDARY** 1.0 (0, 0, 0) Piano secondary - 1/2 hour lesson

**MAP 220 ORGAN SECONDARY** 1.0 (0, 0, 0) Organ secondary - 1/2 hour lesson

**MAP 225 HARPSICHORD SECONDARY** 1.0 (0, 0, 0) Harpsichord secondary - 1/2 hour lesson

**MAP 230 FLUTE SECONDARY** 1.0 (0, 0, 0) Flute secondary - 1/2 hour lesson

**MAP 231 OBOE SECONDARY** 1.0 (0, 0, 0) Oboe secondary - 1/2 hour lesson

**MAP 232 CLARINET SECONDARY** 1.0 (0, 0, 0) Clarinet secondary - 1/2 hour lesson

**MAP 233 BASSOON SECONDARY** 1.0 (0, 0, 0) Bassoon secondary - 1/2 hour lesson.

**MAP 234 SAXOPHONE SECONDARY** 1.0 (0, 0, 0) Saxophone secondary - 1/2 hour lesson

**MAP 240 TRUMPET SECONDARY** 1.0 (0, 0, 0) Trumpet secondary - 1/2 hour lesson

**MAP 241 HORN SECONDARY** 1.0 (0, 0, 0) Horn secondary - 1/2 hour lesson

**MAP 242 TROMBONE SECONDARY** 1.0 (0, 0, 0) Trombone secondary - 1/2 hour lesson

**MAP 243 EUPHONIUM SECONDARY** 1.0 (0, 0, 0) Euphonium secondary - 1/2 hour lesson

**MAP 244 TUBA SECONDARY** 1.0 (0, 0, 0) Tuba secondary - 1/2 hour lesson

**MAP 250 VIOLIN SECONDARY** 1.0 (0, 0, 0) Violin secondary - 1/2 hour lesson

**MAP 251 VIOLA SECONDARY** 1.0 (0, 0, 0) Viola secondary - 1/2 hour lesson

**MAP 252 CELLO SECONDARY** 1.0 (0, 0, 0) Cello secondary - 1/2 hour lesson

**MAP 253 BASS SECONDARY** 1.0 (0, 0, 0) Bass secondary - 1/2 hour lesson

**MAP 254 HARP SECONDARY** 1.0 (0, 0, 0) Harp secondary - 1/2 hour lesson

**MAP 257 GUITAR SECONDARY** 1.0 (0, 0, 0) Guitar secondary - 1/2 hour lesson

**MAP 260 PERCUSSION SECONDARY** 1.0 (0, 0, 0) Percussion secondary - 1/2 hour lesson

**MAP 300 VOICE** 0.0 (0, 0, 0) Voice - 1/2 hour lesson. Can be taken for 1 or 2 credits.

**MAP 310 PIANO** 0.0 (0, 0, 0) Piano - 1/2 hour lesson. Can be taken for 1 or 2 credits.

**MAP 320 ORGAN** 0.0 (0, 0, 0) Organ - 1/2 hour lesson. Can be taken for 1 or 2 credits.

**MAP 325 HARPSICHORD** 0.0 (0, 0, 0) Harpsichord - 1/2 hour lesson. Can be taken for 1 or 2 credits.

**MAP 330 FLUTE** 0.0 (0, 0, 0) Flute - 1/2 hour lesson. Can be taken for 1 or 2 credits.

**MAP 331 OBOE** 0.0 (0, 0, 0) Oboe - 1/2 hour lesson. Can be taken for 1 or 2 credits.

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MAP 332 CLARINET 0.0 (0, 0, 0) Clarinet - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 333 BASSOON 0.0 (0, 0, 0) Bassoon - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 334 SAXOPHONE 0.0 (0, 0, 0) Saxophone - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 340 TRUMPET 0.0 (0, 0, 0) Trumpet - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 341 HORN 0.0 (0, 0, 0) Horn - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 342 TROMBONE 0.0 (0, 0, 0) Trombone - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 343 EUPHONIUM 0.0 (0, 0, 0) Euphonium - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 344 TUBA 0.0 (0, 0, 0) Tuba - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 350 VIOLIN 0.0 (0, 0, 0) Violin - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 351 VIOLA 0.0 (0, 0, 0) Viola - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 352 CELLO 0.0 (0, 0, 0) Cello - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 353 BASS 0.0 (0, 0, 0) Bass - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 357 GUITAR 0.0 (0, 0, 0) Guitar - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 360 PERCUSSION 0.0 (0, 0, 0) Percussion - 1/2 hour lesson. Can be taken for 1 or 2 credits.

MAP 400 VOICE 0.0 (0, 0, 0) Voice - 1 hour lesson. Can be taken for one, two or four credits.

MAP 410 PIANO 0.0 (0, 0, 0) Piano - 1 hour lesson. Can be taken for one, two or four credits.

MAP 420 ORGAN 0.0 (0, 0, 0) Organ - 1 hour lesson. Can be taken for one, two or four credits.

MAP 425 HARPSICHORD 0.0 (0, 0, 0) Harpsichord - 1 hour lesson. Can be taken for one, two or four credits.

MAP 430 FLUTE 0.0 (0, 0, 0) Flute - 1 hour lesson. Can be taken for one, two or four credits.

MAP 431 OBOE 0.0 (0, 0, 0) Oboe - 1 hour lesson. Can be taken for one, two or four credits.

MAP 432 CLARINET 0.0 (0, 0, 0) Clarinet - 1 hour lesson. Can be taken for one, two or four credits.

MAP 433 BASSOON 0.0 (0, 0, 0) Bassoon - 1 hour lesson. Can be taken for one, two or four credits.

MAP 434 SAXOPHONE 0.0 (0, 0, 0) Saxophone - 1 hour lesson. Can be taken for one, two or four credits.

MAP 440 TRUMPET 0.0 (0, 0, 0) Trumpet - 1 hour lesson. Can be taken for one, two or four credits.

MAP 441 HORN 0.0 (0, 0, 0) Horn - 1 hour lesson. Can be taken for one, two or four credits.

MAP 442 TROMBONE 0.0 (0, 0, 0) Trombone - 1 hour lesson. Can be taken for one, two or four credits.

MAP 443 EUPHONIUM 0.0 (0, 0, 0) Euphonium - 1 hour lesson. Can be taken for one, two or four credits.

MAP 444 TUBA 0.0 (0, 0, 0) Tuba - 1 hour lesson. Can be taken for one, two or four credits.

MAP 450 VIOLIN 0.0 (0, 0, 0) Violin - 1 hour lesson. Can be taken for one, two or four credits.

MAP 451 VIOLA 0.0 (0, 0, 0) Viola - 1 hour lesson. Can be taken for one, two or four credits.

MAP 452 CELLO 0.0 (0, 0, 0) Cello - 1 hour lesson. Can be taken for one, two or four credits.

MAP 453 BASS 0.0 (0, 0, 0) Bass - 1 hour lesson. Can be taken for one, two or four credits.

MAP 457 GUITAR 0.0 (0, 0, 0) Guitar - 1 hour lesson. Can be taken for one, two or four credits.

MAP 460 PERCUSSION 0.0 (0, 0, 0) Percussion - 1 hour lesson. Can be taken for one, two or four credits.

MEN 000 RECITAL ATTENDANCE 0.0 (0, 0, 0) Recital attendance is to be taken for no credit.

MEN 100 CONCERT CHOIR 0.0 (0, 0, 0) A highly select choir of forty eight voices. Presents a concert each semester and joins with the other choruses for choral festivals. The choir is a touring ensemble.

MEN 101 FESTIVAL CHORUS 0.0 (0, 0, 0) A large mixed chorus providing opportunity to experience great choral literature. Presents a concert each semester and joins other choruses for choral festivals.

MEN 102 OPERA WORKSHOP 0.0 (0, 0, 0) Study and performance of operatic and musical comedy scenes chosen according to the abilities of the students in the workshop. Full-scale musical comedy productions done in conjunction with the department of speech, communications, and theatre. Under supervision, students perform in, musically direct, coach, accompany, conduct, and stage-direct various scenes.

MEN 103 MANSFIELDIANS 0.0 (0, 0, 0) A vocal jazz/madrigal ensemble. Specializes in singing jazz, madrigal folk music. Available for performance in public schools, service agencies, and alumni functions. Audition required.

MEN 104 CHAMBER SINGERS 0.0 (0, 0, 0) A vocal chamber ensemble. Specializes in repertoire of the vocal chamber medium. Concerts are given at the University and off-campus by request. Audition required.

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**MEN 105 VOCAL ENSEMBLE** 0.0 (0, 0, 1) Studies and performs representative works for various vocal combinations.

**MEN 110 PIANO ENSEMBLE** 0.0 (0, 0, 1) Study and performance of two-piano and four-hand literature, chamber music, sonatas and trios. Accompaniment of standard instrumental and vocal literature.

**MEN 130 CONCERT WIND ENSEMBLE** 0.0 (0, 0, 0) A highly select concert band of forty eight woodwind, brass, and percussion players. In addition to presenting concerts on campus, the Wind Ensemble is a touring ensemble. Audition required.

**MEN 131 MOUNTIE MARCHING BAND** 0.0 (0, 0, 0) (fall semester only). Performs at all home football games and hosts the Mansfield University band day. Performs at out-of-town football games, as well as periodic appearances at professional games, special functions, and international events.

**MEN 132 SYMPHONIC BAND** 0.0 (0, 0, 0) (spring semester only). Studies a wide variety of band literature and presents concerts on campus.

**MEN 133 WOODWIND ENSEMBLE** 0.0 (0, 0, 1) Study and performance of representative works for various woodwind ensembles. One woodwind quintet and one sax quintet take an annual tour.

**MEN 134 BRASS ENSEMBLE** 0.0 (0, 0, 1) Study and performance of representative works for various combinations of brass instruments.

**MEN 135 CONCERT JAZZ BAND** 0.0 (0, 0, 0) Performs several times each year on campus as well as touring and performing concerts off-campus. Membership by audition.

**MEN 136 SMALL JAZZ AND COMMERCIAL ENSEMBLES** 0.0 (0, 0, 2) Provides opportunity for students to gain supervised experience in performing jazz and other current professional music idioms in small groups.

**MEN 150 ORCHESTRA** 0.0 (0, 0, 0) College-Community Symphony. Provides an opportunity to participate in the performance of standard symphonic literature. The orchestra presents a concert each semester, accompanies outstanding student soloists, participates in the biennial choral festival. The choir is a touring ensemble.

**MEN 151 STRING ENSEMBLE** 0.0 (0, 0, 1) Study and performance of standard literature for string ensembles.

**MEN 157 GUITAR ENSEMBLE** 0.0 (0, 0, 1) Introduction of the technique and repertoire of guitar ensemble music and ensemble performance skills.

**MEN 160 PERCUSSION ENSEMBLE** 0.0 (0, 0, 1) Study and performance of representative works for all combinations of percussion instruments.

**MEN 300 CONCERT CHOIR** 0.0 (3, 0, 0) A highly select choir of forty eight voices which presents a concert each semester and joins with the other choruses for choral festivals. The choir is a touring ensemble. May be taken for 0 or 1 credit.

**MEN 301 FESTIVAL CHORUS** 0.0 (3, 0, 0) A large mixed chorus providing opportunity to experience great choral literature. Students present a concert each semester and join other choruses for choral festivals. May be taken for 0 or 1 credit.

**MEN 302 OPERA WORKSHOP** 0.0 (2, 0, 0) The study and performance of operatic and musical comedy scenes chosen according to the abilities of the students in the workshop. Full-scale musical comedy productions are done in conjunction with the department of speech, communications and theatre. Under supervision, students perform in, musically direct, coach, accompany, conduct, and stage-direct various scenes. May be taken for 0 or 1 credit.

**MEN 303 MANSFIELDIANS** 0.0 (3, 0, 0) A vocal jazz/madrigal ensemble which specializes in singing jazz, madrigal, and folk music. This group is available for performance in public schools, service agencies, and alumni functions. Audition required. May be taken for 0 or 1 credit.

**MEN 304 CHAMBER SINGERS** 0.0 (3, 0, 0) A vocal chamber ensemble which specializes in repertoire of the vocal chamber medium. Concerts are presented at the University and off-campus by request. Audition required. May be taken for 0 or 1 credit.

**MEN 305 VOCAL ENSEMBLE** 0.0 (0, 0, 1) Studies and performs representative works for various vocal combinations. May be taken for 0 or 1 credit.

**MEN 310 PIANO ENSEMBLE** 0.0 (0, 0, 1) Studies and performs two-piano and four-hand literature, chamber music, sonatas, and trios, including accompaniment of standard instrumental and vocal literature. May be taken for 0 or 1 credit.

**MEN 330 CONCERT WIND ENSEMBLE** 0.0 (3, 0, 0) A highly select concert band of forty eight woodwind, brass, and percussion players. In addition to presenting concerts on campus, the wind ensemble is a touring ensemble. Audition required. May be taken for 0 or 1 credit.

**MEN 331 MOUNTIE MARCHING BAND** 0.0 (4, 0, 0) Performs at all home and out-of-town football games and hosts the Mansfield University band day, as well as, periodic appearances at professional games, special functions, and international events. May be taken for 0 or 1 credit.

**MEN 332 SYMPHONIC BAND** 0.0 (3, 0, 0) Studies a wide variety of band literature and presents concerts on campus. May be taken for 0 or 1 credit.

**MEN 333 WOODWIND ENSEMBLE** 0.0 (0, 0, 1) Study and performance of representative works for various woodwind ensembles. One woodwind quintet and one sax quintet take an annual tour. May be taken for 0 or 1 credit.

**MEN 334 BRASS ENSEMBLE** 0.0 (0, 0, 1) Study and performance of representative works for various combinations of brass instruments. May be taken for 0 or 1 credit.

**MEN 335 CONCERT JAZZ BAND** 0.0 (3, 0, 0) Performs on-campus several times each year, as well as, touring and performing concerts off-campus. Membership by audition. May be taken for 0 or 1 credit.

## COURSE DESCRIPTION

**MEN 336 SMALL JAZZ AND COMMERCIAL ENSEMBLES 0.0 (0, 0, 2)** Provides the opportunity for students to gain supervised experience in performing jazz and other current professional music idioms in small groups. May be taken for 0 or 1 credit. Dual listed with 536.

**MEN 350 ORCHESTRA 0.0 (4, 0, 0)** The College-Community Symphony provides an opportunity to participate in the performance of standard symphonic literature. Our orchestra presents a concert each semester, accompanies outstanding student soloists, participates in the biennial choral festival, and is a touring ensemble. May be taken for 0 or 1 credit.

**MEN 351 STRING ENSEMBLE 0.0 (0, 0, 1)** Study and performance of standard literature for string ensembles. May be taken for 0 or 1 credit.

**MEN 357 GUITAR ENSEMBLE 0.0 (0, 0, 1)** Introduction to the technique and repertoire of guitar ensemble music and ensemble performance skills. May be taken for 0 or 1 credit.

**MEN 360 PERCUSSION ENSEMBLE 0.0 (1, 0, 0)** Study and performance of representative works for all combinations of percussion instruments. May be taken for 0 or 1 credit.

**MTH 171 THERAPY ORIENTATION 3.0 (3, 0, 0)** Studies the nature of music therapy and the therapeutic process. Students will gain a better understanding of the clients served and the types of treatment available.

**MTH 210 CLINICAL INTEGRATION I 1.0 (0, 0, 0)** Students will participate in weekly laboratory experiences on campus and in a clinical setting. Written assignments and a workshop experience are required. Prerequisite: MAP 157, MTH 171, and SPE 101.

**MTH 211 CLINICAL INTEGRATION II 1.0 (0, 0, 0)** Students will participate in weekly lecture/discussion sessions and clinical experiences. Written assignments and a workshop experience are required.

**MTH 211L&CLINICAL ORIENTATION LABORATORY 1.0 (0, 0, 1)** Clinical Orientation laboratory. Prerequisite: MTH 171.

**MTH 372 PSYCHO-SOCIAL FOUNDATIONS OF MUSIC 3.0 (3, 0, 0)** Studies the functions of music in society and the psychological attributes of music. Students gain a better understanding of the effects and properties of music in human life. A paper and an oral report are required.

**MTH 410 ADVANCED CLINICAL INTEGRATION I 0.0 (2, 0, 2)** Provides preparation for advanced clinical work with a wide range of client populations. Provides relevant academic preparation and opportunities to develop clinical skills and to deepen personal awareness. A workshop experience is required. May be taken for one or two credits, but no more than four credits. Prerequisite: MTH 171, 210, 211, and 211L.

**MTH 411 ADVANCED CLINICAL INTEGRATION II 0.0 (1, 0, 3)** Provides preparation for advanced clinical work with a wide range of client populations. Provides relevant academic preparation and opportunities to develop clinical skills and to deepen personal awareness. A workshop experience is required. May be taken for one or two credits not to exceed four credits. Prerequisite: MTH 171, 210, 211, and 211L.

**MTH 471 INFLUENCE OF MUSIC ON BEHAVIOR 3.0 (3, 0, 0)** A survey of research in music therapy with a focus on ways music can be employed in the therapeutic process to change problem behaviors. A paper is required.

**MTH 472 MUSIC IN THERAPY 3.0 (3, 0, 0)** Studies the relationships of music therapy to institutional organization and administration, as well as, other therapeutic disciplines. A project/paper is required.

**MTH 475 INTERNSHIP 2.0 (0, 0, 0)** A practical application of theories of uses of music in therapeutic settings. Choices such as a hospital, state school, correctional facility, public school, special education, and private school may be available.

**MU 101 INTRODUCTION TO MUSIC 3.0 (3, 0, 0)** Studies principal vocal and instrumental forms and media. Surveys important compositions from the early Baroque to the present.

**MU 102 FUNDAMENTALS OF MUSIC 3.0 (3, 0, 0)** The fundamentals of music theory (melody, rhythm, harmony, form, and timbre) are introduced in a "hands-on" practical manner. Activities include analysis of music examples, composition, guided listening, performing, and keyboard theory lab. Music fundamentals will be approached from the standpoints of the listener, the performer, and the composer.

**MU 141 INTRODUCTION TO MUSIC EDUCATION 1.0 (1, 0, 1)** Provides an overview of music education and an acquaintance with the process of teaching and learning music in the elementary and secondary schools.

**MU 151 EURYTHMICS I 1.0 (1, 0, 1)** Laboratory experience in rhythmic movement to develop skill and greater perception of common rhythms. The Jacques Dalcroze philosophy is followed.

**MU 152 EURYTHMICS II AND BASIC CONDUCTING 1.0 (1, 0, 1)** Develops greater sensitivity to and awareness of the nuances of dynamics and rhythm. Beginning conducting techniques are included. Prerequisites: MU 151.

**MU 201 INTRODUCTION TO JAZZ 3.0 (3, 0, 0)** Studies the evolutionary history of jazz from the earliest African and European influences to the present. Emphasizes listening experiences and develops an awareness of the unique role of jazz in American culture.

**MU 211 BASIC MUSIC I 3.0 (3, 1, 0)** Development of vocabulary; study of modes, scales, harmonic rhythmic, and composition techniques. Supportive examples selected from all periods of music. Sight singing and dictation.

**MU 212 BASIC MUSIC II 3.0 (3, 1, 0)** Continuation of 211. Analysis and creative projects involving Baroque practices of figured bass, functional harmony, modulation, and altered chords. Prerequisite: MU 211.

**MU 221 CLASSIC AND ROMANTIC MUSIC 0.0 (0, 0, 0)** Surveys Western European musical literature and musical styles of the Classic and Romantic Eras. May be taken for 2 or 3 credits only.

**MU 222 POST ROMANTIC AND 20TH CENTURY MUSIC 0.0 (0, 0, 0)** Surveys Western European and American musical literature and musical styles beginning with the Post-Romantic

Era through main currents of 20th-century composition. May be taken for 2 or 3 credits only. Prerequisite: MU 221 or permission of instructor.

**MU 261 FUNDAMENTALS OF JAZZ IMPROVISATION I** 2.0 (1, 0, 1) Studies the materials, styles, and techniques of creative and spontaneous jazz performance.

**MU 262 FUNDAMENTALS OF JAZZ IMPROVISATION II** 2.0 (1, 0, 1) Continuation of 261.

**MU 263 JAZZ STYLES AND ANALYSIS** 3.0 (3, 0, 0) In-depth examination and analysis of the stylistic features of the important performers and periods of jazz. Ability to read music required.

**MU 301 WORLD MUSIC** 3.0 (3, 0, 0) Music of various continents are explored with particular emphasis on each traditions cultural function. Provides the fundamental research and comparative skills needed to understand and listen to selected non-western music. Includes discussions of how Western art and popular music incorporate these styles.

**MU 302 INTRODUCTION TO ORIENTAL MUSIC** 3.0 (3, 0, 0) no course description.

**MU 311 BASIC MUSIC III** 3.0 (3, 1, 0) Studies more elaborate harmonic and formal structures. Examines macro-micro elements in relation to performance practices. Creative and analytic projects based on fugal style, rondo and sonata form, and the art song. Prerequisite: MU 212.

**MU 312 BASIC MUSIC IV** 3.0 (3, 1, 0) Examines contemporary techniques. Examples selected from Debussy to post-1950. Creative projects involving the whole tones and twelve-tone scales, and aleatoric and electronic compositions. Sight singing and dictation to include atonal pitch sets. Prerequisite: MU 311.

**MU 315 ORCHESTRATION** 3.0 (3, 0, 0) Designed to provide the basic skills of notation, parts extraction, transposing and arranging, in addition to information on instrumental ranges, qualities, and usages. Strings, woodwinds, and brass are treated as distinct families. Provides a fluent understanding of skills and concepts and, as a by-product, the student will become more aware of score reading and audio awareness. Good manuscript habits will make it possible for musicians to read new music and students will be able to use these skills in graduate school. Prerequisite: MU 312 or permission of instructor.

**MU 317 KEYBOARD SKILLS I** 1.0 (1, 0, 0) Intensive work in accompanying melodies in major and minor keys, with beginning work in modal harmony. Development of varied accompanimental styles, improvisation, command of functional harmony, "playing by ear", transposition, sight reading melodies from elementary music, and harmonizing these melodies at sight. Prerequisite: MU 212.

**MU 318 KEYBOARD SKILLS II** 1.0 (1, 0, 0) Continuation of 317. More complex accompanimental styles, secondary dominant chords, improvisation, transposition, "playing by ear," modulatory techniques, sight reading from junior high music series, sight reading melodies and supplying appropriate accompaniment. Prerequisite: MU 317 or equivalent.

**MU 321 MEDIEVAL AND RENAISSANCE MUSIC** 2.0 (0, 0, 0) Surveys Western European musical literature and musical styles beginning with the early Christian era through the Renaissance. May be taken for 2 or 3 credits only. Prerequisite: MU 221 or permission of instructor.

**MU 322 BAROQUE AND PRE-CLASSICAL MUSIC** 2.0 (0, 0, 0) Surveys Western European musical literature and musical styles of the Baroque and Pre-classical Eras. May be taken for 2 or 3 credits only. Prerequisite: MU 221 or permission of instructor.

**MU 323 PIANO LITERATURE I** 2.0 (2, 0, 0) Detailed study of the literature of the piano from the keyboard works of the late Renaissance through the piano works of the 18th century.

**MU 324 PIANO LITERATURE II** 2.0 (2, 0, 0) Detailed study of the literature of the piano from the 19th century to the present day.

**MU 340 TEACHING MUSIC** 3.0 (3, 0, 1) Designed to enable elementary education majors to integrate the teaching of music into the mainstream of the elementary school curriculum. Fundamentals of music, musical characteristics of children, concept development, and musical activities appropriate for the age group will be stressed. Includes observation/participation in the local elementary school.

**MU 341 MUSIC IN THE ELEMENTARY SCHOOL** 2.0 (2, 0, 1) Studies the developmental and musical characteristics of children ages 5-11. Emphasizes teaching the elements of music through musical activities appropriate for this age group. Includes a survey of current materials as well as observation/participation in the local elementary school. Particular attention is given to curricular development for vocal and general music classes. Prerequisite: MU 141, 212 and five hours of pre-professional experience.

**MU 342 MUSIC IN THE SECONDARY SCHOOL** 2.0 (2, 0, 1) Studies the developmental and musical characteristics of students ages 12-18. Emphasizes teaching the elements of music through musical experiences appropriate for this age group. Includes a survey of current materials as well as observation/participation in the local secondary school. Particular attention is given to classroom management, students with exceptionalities of all ages, curriculum development in general music classes, elective classes, and an overall philosophy of music education. Prerequisite: MU 341 and five hours of pre-professional experience.

**MU 343 INSTRUMENTAL MUSIC IN PUBLIC SCHOOLS** 2.0 (2, 0, 1) Study of a suitable instrumental program for a public school system. Particular attention to class teaching techniques of the various instruments. Problems of organization and administration of such a program; survey and examination of the available instructional material. Prerequisite: MU 141, 212, 342 and five hours pre-professional experience.

**MU 344 VOCAL-CHORAL MUSIC IN THE PUBLIC SCHOOLS** 2.0 (2, 0, 1) Study of a suitable choral program for a public school system. Particular attention is given to the teaching of voice through the developmental stages of elementary, middle, and high school students. Experience in working with the age group is an important part of the course. Prerequisite: MU 112, 141, 342, 350, and five hours pre-professional experience.

## COURSE DESCRIPTION

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**MU 350 CHORAL CONDUCTING 2.0 (2, 1, 0)** Prepares the future music educator to organize, teach, and conduct choral organizations of varying levels of achievement, particularly junior and senior high school age groups. Experience in conducting the class as a chorus is integral to the course. Prerequisite: MU 212.

**MU 351 INSTRUMENTAL CONDUCTING 2.0 (2, 1, 0)** Prepares for conducting instrumental groups. Emphasis on communicative and control techniques of conducting and rehearsal and performance techniques. Experience through conducting a laboratory band and orchestra. Videotaping is utilized extensively with each individual. Prerequisite: MU 212.

**MU 361 JAZZ ARRANGING I 2.0 (1, 0, 2)** Studies techniques in arranging for modern jazz ensembles of all sizes.

**MU 362 JAZZ ARRANGING II 2.0 (1, 0, 2)** A more advanced course in the styles and techniques of arranging for modern jazz ensembles of all sizes.

**MU 363 JAZZ ENSEMBLE MATERIALS AND TECHNIQUES 2.0 (1, 0, 1)** Acquaints prospective directors of secondary school performing jazz ensembles with materials and techniques appropriate to the idiom. Highly useful to students interested in amateur or professional jazz ensemble performance outside of educational institutions. Dual listed with 563.

**MU 400 STUDENT TEACHING 12.0 (0, 0, 0)** (By arrangement) Opportunity to apply knowledge and skills acquired in professional preparation. Accomplished by a field experience in university established centers under supervision of qualified co-operating teachers. Observations and conferences are scheduled by the departmental supervisor. Prerequisite: 2.5 QPA.

**MU 410 FORMSAND ANALYSIS 3.0 (3, 0, 0)** Various methods of musical analysis are studied and applied to compositions representative of various periods of music history. Prerequisite: MU 312.

**MU 411 COUNTERPOINT 3.0 (3, 0, 0)** Studies the contrapuntal style of the late 17th and early 18th centuries. Prerequisite: MU 312.

**MU 412 ADVANCED HARMONY 3.0 (3, 0, 0)** Harmonic techniques of the late nineteenth and early twentieth centuries; interrelationships of harmonic vocabulary and musical form. Prerequisite: MU 312.

**MU 417 COMPOSITION 3.0 (2, 1, 0)** Contemporary techniques of musical composition; emphasis on creative work. Prerequisite: MU 312 or permission of instructor.

**MU 418 ADVANCED COMPOSITION 3.0 (2, 1, 0)** Continuation of 417. For students interested in more intensive work than can be provided in 417.

**MU 420 SONG LITERATURE 3.0 (3, 0, 0)** Studies development of monophonic song from the days of the troubadours and trouvers to the present time. Emphasizes especially the history of the German lied, the French chanson or melody, and solo song in the British Isles and the United States. Also includes the major composers of song in the Slavic countries, Spain, South America, and Scandinavia.

**MU 427 CONTEMPORARY MUSIC 3.0 (3, 0, 0)** Surveys the styles, forms, and musical techniques of contemporary music.

**MU 428 AMERICAN MUSIC 3.0 (3, 0, 0)** Historical background and development of music in the United States from colonial times to the present. Studies the principal composers and their music. Reading, research, and listening emphasized.

**MU 429 ADVANCED STUDIES MUSIC LITERATURE 3.0 (3, 0, 0)** Intensive study of selected choral, solo, chamber, and orchestral masterpieces: emphasis on formal and stylistic developments. Prerequisite: MU 221, 222, 321, and 322.

**MU 431 THE SYMPHONY 3.0 (3, 0, 0)** Studies orchestral music from its beginning. The Mannheim composers, the Viennese classics, the Romanticists, and contemporary composers. Works will be analyzed and their historical, cultural, and philosophical backgrounds discussed.

**MU 432 THE CONCERTO 3.0 (3, 0, 0)** Emphasizes the development of the concerto and the stylistic contributions of the great masters. Representative works will be studied in score and recordings.

**MU 452 DICTION FOR SINGERS 3.0 (2, 1, 0)** Systematically approaches pronunciation in solo and choral literature in English, Italian and Latin, French and German. The International Phonetic Alphabet will be used with emphasis on those elements of pronunciation which require modification from spoken to singing language. Includes listening, class performance, and teaching experiences.

**MU 458 BASIC WOODWIND REPAIR 2.0 (2, 0, 0)** Designed to give the student the knowledge and skills needed to repair the majority of problems encountered on woodwind instruments.

**MU 459 MARCHING BAND TECHNIQUES 2.0 (2, 0, 1)** Detailed study of the marching band including philosophy, styles, charting, music, materials, instrumentation, administration, and contemporary techniques.

**MU 471 VOCAL PEDAGOGY 2.0 (0, 0, 0)** A study of the teaching of singing on an individual or group basis. Study of the five elements of singing: respiration, phonation, resonance, articulation, and interpretation. An examination of various approaches to voice teaching, including a study of books on voice pedagogy. May be taken for 2 or 3 credits only. Dual listed with 571. Prerequisite: permission of instructor.

**MU 472 PIANO PEDAGOGY 2.0 (2, 0, 1)** Studies procedures for class and individual instruction: emphasizes the ear approach as the basis for reading, true musical perception and intelligent understanding of the printed page. Examines and evaluates materials suitable for the first years of piano study. Prerequisite: permission of instructor.

**MU 473 PRACTICUM IN PIANO TEACHING 1.0 (1, 0, 2)** Introduces class and individual instruction techniques to be used with young beginners. Prerequisite: MU 472.

**MU 475 WOODWIND PEDAGOGY 3.0 (3, 0, 0)** Acquaints students with the woodwind instruments and their solo and ensemble literature. Lecture, demonstration, films, tapes, and recordings presented for flute, oboe, bassoon, clarinet, and saxophone.

**MU 476 BRASS PEDAGOGY** 3.0 (3, 0, 0) Studies the techniques, teaching problems, teaching materials, history, and literature related to the brass instruments.

**MU 477 PERCUSSION PEDAGOGY** 3.0 (3, 0, 0) Studies teaching techniques and associated literature of the various percussion instruments.

**MU 481 SURVEY OF THE BUSINESS OF MUSIC** 3.0 (3, 0, 0) Presents an overall view of music merchandising, describes the various types of retailing, and acquaints the student with the administration, advertising, marketing processes, and consumer orientation necessary for the education of a person in the retail-wholesale aspects of the music industry.

**MU 482 MUSIC BUSINESS MANAGEMENT SEMINAR** 1.0 (1, 0, 0) A study of the problems and expectations unique to Music Business Management.

**MU 483 MUSIC MARKETING AND PROMOTION SEMINAR** 1.0 (1, 0, 0) Gives insight and detailed analysis of marketing and promotion for music stores and music associated organizations.

**MU 484 MUSIC BUSINESS FINANCIAL PLANNING CONTROL SEMINAR** 1.0 (1, 0, 0) Explores methods for financial planning and control including internal control and store security, payroll records and worker's compensation payroll audits, and a case study of financial reporting and management planning.

**MU 489 INTERNSHIP: MUSIC MERCHANDISING** 12.0 (0, 0, 0) Provides experiences in the following: (a) a "hands-on experience", (b) an opportunity to observe professionals in the field, (c) a broadening and understanding of problems and careers in the field, (d) an educationally directed field instruction, (e) an opportunity to apply knowledge, theory, and understanding in a job situation, and (f) an opportunity to develop marketable skills.

**MU 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**NUR 250 INTRODUCTION TO NURSING AND HEALTH CARE I** 4.0 (3, 0, 3) An introduction to basic concepts of nursing. Focus is on the role and function of the professional nurse within the health care system and provides an overview of the nursing process and the health care needs of the individual adult client. Laboratory and clinical experiences are offered in a variety of settings and at all levels of prevention.

**NUR 251 INTRODUCTION TO NURSING AND HEALTH CARE II** 4.0 (3, 0, 3) Builds and focuses on the concepts introduced in 250, assisting the student to further clarify and conceptualize the professional nursing role. The effects of religious, cultural, sociological, and economic events on the development of nursing are examined. Laboratory and clinical experiences are provided in a variety of settings and at all levels of prevention. Prerequisite: NUR 250.

**NUR 260 CONCEPTS OF PROFESSIONAL NURSING** 3.0 (3, 0, 0) A seminar designed to introduce RN students to the theoretical and philosophical bases underlying professional nursing practice. Role theory with an emphasis on the development of the professional self-concept will be explored. Open to RN students only.

**NUR 360 INTRODUCTION TO NURSING RESEARCH** 3.0 (3, 0, 0) Provides an overview of the steps in the research process and the ethical and legal standards involved in scientific inquiry. The purpose, development, and importance of research in the nursing profession is emphasized. In addition, the course provides the knowledge and methods required to critically evaluate research studies and reports. Prerequisite: MA 125, NUR 250 and 251.

**NUR 370 NURSING CARE OF THE ADULT CLIENT** 8.0 (4, 0, 12) Explores the use of the nursing process with adult clients as they encounter actual and potential stressors along with the wellness-illness continuum. The clinical lab provides the student with opportunities to apply the nursing process at all levels of prevention and to observe various roles of the professional nurse within the health care system. Prerequisite: BIO 121, 122, 355, CHM 110, NUR 250 and 251.

**NUR 371 NURSING CARE OF CHILDBEARING AND CHILDRARING FAMILIES** 8.0 (4, 0, 12) Explores the use of the nursing process with individual and family clients. The focus of the role of the nurse in meeting the health care needs of childbearing and childrearing families at all levels of prevention and in a variety of settings. The course content focuses on growth and development, family issues and assessment, the change process, and stressors for and reaction of individuals and families. Prerequisite: BIO 121, 122, 355, CHM 110 and NUR 251.

**NUR 380 NURSING PHYSICAL ASSESSMENT** 2.0 (1, 0, 3) Designed to assist the student in obtaining the cognitive and psychomotor skills to assess individuals as they encounter actual and potential stressors along the wellness-illness continuum. Includes both a classroom and learning laboratory component which incorporates principles of interviewing, comprehensive health history, sequential physical assessment, analysis of collected data and documentation. Prerequisite: BIO 121, 122, 355, CHM 110, NUR 250 and 251.

**NUR 390 PHARMACOLOGICAL BASIS FOR NURSING PRACTICE** 2.0 (2, 0, 0) Utilizes the nursing process to provide a pharmacological basis for nursing practice. Includes discussion of pathophysiological phenomena and pharmacological interventions including pharmacokinetics, pharmacodynamics, and implications for professional nursing practice. Prerequisite: BIO 121, 122, 355, CHM 110, NUR 250 and 251.

**NUR 420 TEACHING IN NURSING** 3.0 (3, 0, 0) Examines teaching and learning principles, and educational issues. Students will practice teaching/learning strategies in a nursing education or nursing practice setting. Focus will be on the client or nursing education. Prerequisite: NUR 370 and 371.

**NUR 430 COMMUNICATIONS IN NURSING** 3.0 (3, 0, 0) Provides both theory and classroom experiences with communications in nursing which will support, reinforce, and expand on concepts from previous courses. The acquisition of knowledge and the development of skills which will assist one in becoming more effective in the client-nurse relationship are emphasized. Verbal and non-verbal communication techniques, problem solving, empathy, self-disclosure, confrontation, relaxation, and responsible/assertive communications are some of the topics are examined. Prerequisite: COM 101, NUR 250 and 251.

## COURSE DESCRIPTION

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**NUR 453 CREATIVE INTERVENTIONS IN NURSING 3.0 (3, 0, 0)** Several creative interventions will be defined, described, and studied. These interventions will include humor and laughter, storytelling, music therapy, relaxation therapy, clowning and creative movement. The nursing role and nursing process involved in these interventions will be explored. The nursing student will apply the use of one creative intervention to the clinical setting. Prerequisite: NUR 250, 251, 370 and 371.

**NUR 454 GERONTOICS/NORMALAGING 3.0 (3, 0, 0)** Provides both theoretical content and interaction with the well-elderly. Assessing and assisting the aging to maintain wellness will be the major focus. Prerequisite: NUR 250, 251 and SOC 101.

**NUR 460 CURRENT ISSUES IN PROFESSIONAL NURSING 3.0 (3, 0, 0)** A seminar which examines current trends, controversies, questions, and dilemmas of professional nursing. The influence of political, ethical/legal, economic, and societal aspects on nursing practice and education are explored. Prerequisite: junior level nursing courses.

**NUR 470 NURSING CARE OF THE CLIENT WITH MULTISYSTEM STRESSORS 9.0 (4, 0, 15)** Examines the nursing process to care for adult clients and families with acute and multiple health problems which penetrate the lines of resistance. Prerequisite: junior level nursing courses.

**NUR 471 COMMUNITY HEALTH NURSING 6.0 (3, 0, 9)** Explores the scope of community health nursing considering the multiple frameworks of nursing theory and process, family theory and practice, and public health principles. Emphasis is placed on studying the relationships between individual, family, and community health care needs. Prerequisite: junior level nursing courses.

**NUR 472 MENTAL HEALTH NURSING 6.0 (3, 0, 9)** Focuses on the mental health concepts relative to the nursing care of clients. The nursing process is examined and applied primarily with individuals, but also includes families, groups, and communities and takes place in a variety of settings. Emphasis is placed upon the nurses role of collaboration with other health care professionals in meeting the health care needs of clients at all levels of prevention. Prerequisite: junior level nursing courses.

**NUR 480 LEADERSHIP AND MANAGEMENT IN NURSING 3.0 (3, 0, 0)** Introduces the student to the theoretical foundation for the practice of independent and interdependent nursing by discussing current leadership and management concepts and their relevance to professional nursing practice. Prerequisite: junior level nursing courses.

**NUR 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**PHL 201 INTRODUCTION TO PHILOSOPHY 3.0 (3, 0, 0)** Examines the basic foundational beliefs of people in the religious, scientific, ethical, and political dimensions of life. Exercises the student's ability to identify his/her own basic beliefs and subject these to critical evaluation. Examples of issues discussed are whether ethical values are relative, the existence of God, the nature of justice, and human freedom.

**PHL 202 CONTEMPORARY MORAL PROBLEMS 3.0 (3, 0, 0)** Analyzes arguments pertaining to difficult contemporary issues. Emphasis is on clarifying and evaluating the conclusions of such arguments. Discussion subjects include: abortion, euthanasia, environmental protection, the rights of women and minorities, censorship and pornography, etc. Course goal is to enable the student to assess the strengths and weaknesses of the various positions on each issue. Prerequisite: PHL 201 or permission of instructor.

**PHL 230 INTRODUCTION TO LOGIC 3.0 (3, 0, 0)** Studies the basic principles of deductive and inductive thinking. Includes informal as well as formal logic. Syllogistic reasoning and elementary symbolic logic may be introduced. Fallacies in advertising, statistical arguments, political campaigns, and everyday speech are examined.

**PHL 280 PHILOSOPHY OF RELIGION 3.0 (3, 0, 0)** Analyzes the validity of various proofs of God's existence. Also examines religious language, the difference between faith and reason, the question of religious authority, and the reasonableness of the religious lifestyle. Prerequisite: PHL 201.

**PHL 300 PHILOSOPHY OF THE ARTS 3.0 (3, 0, 0)** A detailed survey of both classical and modern aesthetic theories along with a criticism of each. Prerequisite: PHL 201 or permission of instructor.

**PHL 305 PHILOSOPHY AND FILM 3.0 (2, 0, 2)** Aesthetic, ethical and epistemological issues surrounding the moving image. Topics include: realism, neo-realism, the new wave, feminism and the influence of existential and marxist philosophies on cinematic theory. Prerequisite: PHL 201 or permission of instructor.

**PHL 310 SOCIAL AND POLITICAL PHILOSOPHY 3.0 (3, 0, 0)** An analysis of philosophical concepts and arguments presupposed in social and political discourse. Topics include: liberty and its limits, human rights, economic and social justice, the nature of political obligation and disobedience. Emphasis is on evaluating philosophical theories from both contemporary and historical sources. Prerequisite: PHL 201 or permission of instructor.

**PHL 320 PHILOSOPHY OF LAW 3.0 (3, 0, 0)** An analysis of philosophical concepts and arguments presupposed in legal discourse and reasoning. Topics will include: the nature of law and legal decision making; theories of justice, privacy, responsibility and punishment. Emphasis is on examining specific legal cases from both contemporary and historical sources. Prerequisite: PHL 201 or permission of instructor.

**PHL 330 EASTERN APPROACHES TO REALITY 3.0 (3, 0, 0)** An examination of the philosophical perspective of the Eastern mind as exhibited in Hinduism, Buddhism, Taoism, Confucianism, Zen Buddhism. Primary focus is on the difference between the Eastern and Western modes of looking at the world. Prerequisite: PHL 201 or permission of instructor.

**PHL 340 ETHICS 3.0 (3, 0, 0)** Examines how to make rational decisions in situations with a moral dimension. Examines traditional and contemporary applied problems in ethics, e.g. sexual morality, cheating. Examines the moral implications of various lifestyles. Course goal is to assist students in developing the ability to function as morally autonomous persons. Prerequisite: PHL 201 or permission of instructor.

**PHL 345 AMERICAN PHILOSOPHY 3.0 (3, 0, 0)** Examines the main movements in American thought, especially the pragmatic. Course focus is on the relation between American philosophy and other aspects of the American experience and character. Classical and contemporary figures are treated. Examines specifically American thought outside of academic philosophy, e.g. in economics, literature, and psychology. Prerequisite: PHL 201 or permission of instructor.

**PHL 350 THE CONCEPT OF MIND 3.0 (3, 0, 0)** Investigates various philosophical theories concerning the nature of mind. Topics include: the possibility of artificial intelligence, the nature of consciousness, emotion, and imagination, dreaming, mind-brain identity, the concept of the unconscious, animal intelligence, the mind as program, and human freedom. Prerequisite: PHL 201 or permission of instructor.

**PHL 360 THE CONCEPT OF KNOWLEDGE 3.0 (3, 0, 0)** An examination of some philosophical concepts and arguments presupposed in discourse about knowledge. Topics include: the possibility that we do not know anything; problems of perception and illusion; problems of evidence acquisition; the nature of scientific knowledge; skepticism; astrology and religion; recent research in cognitive science. Major philosophical theories from both contemporary and historical sources are utilized. Prerequisite: PHL 201 or permission of instructor.

**PHL 365 SCIENCE AND VALUES 3.0 (3, 0, 0)** Examines problems raised by science and technology. Topics will include: the ethics of experimentation; racism and sexism in science; the limits to technological growth; ecological and nuclear disaster; creationism versus evolutionism; ugliness and beauty in a technological environment. This course is geared to both specialists and non-specialists in philosophy or science. Prerequisite: PHL 201 or permission of instructor.

**PHL 370 PHILOSOPHY OF LANGUAGE 3.0 (3, 0, 0)** An examination of the logical structures of descriptive and nondescriptive linguistic activities. Emphasis is on the picture theory of representational language as presented in Ludwig Wittgenstein's Tractatus Logico-Philosophicus. Prerequisite: PHL 201 or permission of instructor.

**PHL 380 HEALTH CARE ETHICS 3.0 (3, 0, 0)** An examination of the arguments designed to provide solutions to moral problems commonly faced by health care professionals. Topics will include: lies to the sick and dying; abortion; euthanasia and the treatment of defective newborns; privacy and confidentiality; suicide intervention; paternalism and limiting liberty; allocation of scarce health care resources; strikes for better wages and working conditions; experimenting with human subjects; nurse/physician and nurse/client relationships; moral decision-making. Prerequisite: PHL 201 or permission of instructor.

**PHL 390 EXISTENTIALISM 3.0 (3, 0, 0)** Analyzes this twentieth-century movement which emphasizes human uniqueness and value. Existential themes include freedom, commitment, self-determination, and authenticity. Major philosophers considered are Kierkegaard, Nietzsche, Heidegger, and Sartre. Prerequisite: PHL 201 or permission of instructor.

**PHL 420 CLASSICAL GREEK PHILOSOPHY 3.0 (3, 0, 0)** A serious investigation of Western philosophy from the beginning through Aristotle. The relationships between philosophy

and other areas of Greek culture are examined. Extended treatments of the pre-Socratics, Plato, and Aristotle are presented. Prerequisite: PHL 201 or permission of instructor.

**PHL 422 TOPICS IN MODERN PHILOSOPHY 3.0 (3, 0, 0)** Includes study of the philosophical thought of the early scientists whose investigations culminated in the contemporary scientific method. Philosophers of the 17th and 18th centuries are examined, from Thomas Hobbes to Immanuel Kant. Problem areas of this period are: the mind-body relationship, the possibility of knowledge, perception, and the status of ideas. Prerequisite: PHL 201 or permission of instructor.

**PHL 423 CONTEMPORARY PHILOSOPHY 3.0 (3, 0, 0)** Analysis of the defining features of major contemporary philosophical movements, with attention primarily to logical positivism, linguistic analysis, pragmatism, and existentialism. Prerequisite: PHL 201 or permission of instructor.

**PHL 450 INTERNSHIP 12.0 (0, 0, 0)** Information can be obtained from Philosophy chairperson. NO MORE THAN SIX CREDITS COUNT TOWARD THE PHILOSOPHY MAJOR.

**PHL 490 SEMINAR 0.0 (0, 0, 0)** A supervised investigation of a specialized problem in philosophy or into the writings of a specific philosopher or philosophic movement. Prerequisite: PHL 201 or permission of the instructor. May be taken for one through three credits.

**PHL 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**PHY 130 HOUSEHOLD PHYSICS 3.0 (2, 0, 2)** Introduction to the basic concepts of physics by utilizing devices and appliances used in the home today.

**PHY 151 CONCEPTUAL PHYSICS I 4.0 (3, 0, 2)** An introduction to both classical and modern physics without the use of calculus. Designed to enable the student to appreciate the role of physics in society.

**PHY 152 CONCEPTUAL PHYSICS II 4.0 (3, 0, 2)** Continuation of PHY 151.

**PHY 160 PHYSICS OF MUSICAL SOUND 3.0 (2, 0, 2)** A non-mathematical approach to the physical principles involved in the generation, transmission, and detection of sound.

**PHY 165 PHYSICS FOR THE ALLIED HEALTH SCIENCES 3.0 (2, 0, 2)** Designed to give students in the Allied Health Sciences the physics background needed for their professional work. Selection of material is based on the appropriateness of the life sciences without limiting basic concepts found in all introductory physics courses.

**PHY 170 INTRODUCTION TO ELECTRONIC APPARATUS 3.0 (1, 0, 4)** Elementary principles of electrical circuits are taught in lecture and extensively applied in the laboratory by building kits (radio, meters, amplifiers, etc.) of the student's choice. Study for third and second class FCC licenses is sometimes available.

**PHY 180 QUANTITATIVE METHODS FOR THE PHYSICAL SCIENCES 3.0 (3, 1, 0)** Introduction to the application of math-

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ematical analysis to physical situations. Problem solving using algebraic, statistical, calculus, and computer methods.

**PHY 188 GENERAL PHYSICS I** 4.0 (3, 1, 2) A three-semester calculus physics course emphasizing classical concepts. Selected topics in mechanics, heat, electrostatics, electromagnetism, waves and optics. Prerequisite: MA 231 or taken concurrently with PHY 188.

**PHY 191 PHYSICS I** 4.0 (3, 1, 2) A one-year sequential calculus physics course discussing classical mechanics, fluids, thermodynamics, classical electricity and magnetism, optics and waves, modern physics. Application of physics to life science is made in problem selection and laboratory experimentation.

**PHY 192 PHYSICS II** 4.0 (3, 1, 2) Continuation of PHY 191. Prerequisite: PHY 188 or 191.

**PHY 211 GENERAL PHYSICS II** 4.0 (3, 1, 2) Continuation of PHY 188 or 191.

**PHY 212 GENERAL PHYSICS III** 4.0 (3, 1, 2) Continuation of PHY 211.

**PHY 250 THE RESTLESS ATMOSPHERE** 3.0 (2, 0, 2) An introduction to dynamical meteorology which includes general circulation theory, energy budget, instrumentation, weather modification. Prerequisite: high school physics or permission of instructor.

**PHY 311 MODERN PHYSICS I** 3.0 (3, 0, 0) An introduction to 20th century physics, including the structure of atoms and nuclei, basic ideas of quantum mechanics and solid state theory. Prerequisite: PHY 188 and 211.

**PHY 312 MODERN PHYSICS II** 3.0 (3, 0, 0) Continuation of PHY 311.

**PHY 313 PHYSICAL MECHANICS I** 3.0 (3, 0, 0) An analytic treatment of classical mechanics covering the methods of statics and dynamics of rigid bodies with application to physical problems; small oscillations, generalized coordinates and Lagrange's equations. Prerequisite: MA 233 and 311, PHY 188.

**PHY 314 PHYSICAL MECHANICS II** 3.0 (3, 0, 0) Continuation of PHY 313.

**PHY 315 EXPERIMENTAL PHYSICS I** 3.0 (1, 0, 4) Experiments in electrical measurements and circuit elements, optics and atomic physics. Prerequisite: PHY 211.

**PHY 316 EXPERIMENTAL PHYSICS II** 3.0 (1, 0, 4) Continuation of PHY 315.

**PHY 317 PHYSICAL OPTICS** 3.0 (3, 0, 0) Wave phenomena, electromagnetic theory of light, interference, diffraction, polarization and nonlinear optics. Prerequisite: MA 311 and PHY 212.

**PHY 318 THERMODYNAMICS** 3.0 (3, 0, 0) An introduction to thermal physics and kinetic theory. Prerequisite: MA 311 and PHY 212.

**PHY 319 INTRODUCTION TO SOLID STATE PHYSICS** 3.0 (3, 0, 0) A brief summary of the theory underlying the behavior

of solids. Emphasis on transport theory, interaction of light and matter, semiconductor devices, superconductors and lasers. Prerequisite: PHY 311.

**PHY 320 ACOUSTICS** 3.0 (2, 0, 2) Fundamentals of sound waves including generation, transmission, and detection of sound.

**PHY 321 SELECTED TOPICS I** 3.0 (3, 0, 0) Any selected topic not sufficiently covered in a general course.

**PHY 322 SELECTED TOPICS II** 3.0 (3, 0, 0) See PHY 321.

**PHY 333 SPACE DYNAMICS** 3.0 (3, 0, 0) Application of Newtonian mechanics to solution of actual problems in satellite trajectories and orbit; celestial mechanics and navigation. Prerequisite: MA 311 and PHY 188.

**PHY 334 ASTROPHYSICS** 3.0 (3, 0, 0) Application of physics and mathematics to the field of astronomy. A study of stellar models, stellar evolution, radio astronomy and recent discoveries in astronomy. Prerequisite: MA 311 and PHY 311.

**PHY 351 SOLAR ENERGY UTILIZATION** 3.0 (3, 0, 0) Development of the details of solar energy as an alternate technology including physical and engineering principles.

**PHY 401 ELECTRICITY AND MAGNETISM I** 3.0 (3, 0, 0) Foundations of electromagnetic theory including electrostatics, dielectric theory, magnetic properties. Prerequisite: MA 233, 311 and PHY 211.

**PHY 402 ELECTRICITY AND MAGNETISM II** 3.0 (3, 0, 0) Continuation of PHY 401.

**PHY 407 INTRODUCTION TO QUANTUM MECHANICS** 3.0 (3, 0, 0) An introduction to wave mechanical and axiomatic approaches with simple applications. Prerequisite: MA 311 and PHY 311.

**PHY 408 ATOMIC AND NUCLEAR PHYSICS** 3.0 (3, 0, 0) Continuation of PHY 407; physical applications of quantum mechanics to atomic and nuclear physics.

**PHY 415 EXPERIMENTAL PHYSICS III** 3.0 (0, 0, 6) Research problems are assigned to the student on an individual basis.

**PHY 416 EXPERIMENTAL PHYSICS IV** 3.0 (0, 0, 6) Continuation of PHY 415.

**PHY 450 CURRENT SCIENTIFIC PHENOMENA** 0.0 (0, 0, 0) This course permits students to take advantage of important temporary phenomena. Thus credit hours, period and time of presentation, and instructional personnel must vary. Selection of topics will be based upon intrinsic value and interest as well as importance for other courses. May be taken for one through three credits not to exceed six credits.

**PHY 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**PSC 100 INTRODUCTION TO POLITICS** 3.0 (3, 0, 0) Examines major concepts, institutions, processes, actors, and issues

in modern politics. Emphasis is on universal trends and themes. Designed for non-majors.

**PSC 101 AMERICAN POLITICS 3.0 (3, 0, 0)** Examines political principles and processes, governmental institutions and mechanics of governing in the United States.

**PSC 102 STATE AND LOCAL POLITICS 3.0 (3, 0, 0)** Examines political principles and processes, governmental institutions, and mechanics of governing the states and their local units.

**PSC 210 WORLD POLITICS 3.0 (3, 0, 0)** Examines international relations in our time. Emphasis is on the goals and behaviors of nation-states, the policies of important countries, the causes of regional conflicts, and the search for peace, security, order and justice.

**PSC 212 COMPARATIVE POLITICS 3.0 (3, 0, 0)** Examines the governments and politics of representative nations. Emphasis is on political cultures, processes, institutions, and policies, as well as forces creating consensus and conflict, stability, and instability.

**PSC 220 PUBLIC POLICY 3.0 (3, 0, 0)** Examines the public policy process from issue creation to policy adoption. Focuses on the politics of the policy making process.

**PSC 222 PUBLIC ADMINISTRATION 3.0 (3, 0, 0)** Examines basic principles, forms, and functions of bureaucracy in modern government. Emphasis is on issues arising from the interaction of organizations with social and political environments.

**PSC 228 POLITICAL ECONOMY 3.0 (3, 0, 0)** Examines the relationship between politics and economics in modern society. Emphasis is on democracy and capitalism in America, and on the role of government in the U.S. economy.

**PSC 235 SCOPE AND METHODS 3.0 (3, 0, 0)** Examines both the subject matter of political science as a discipline and associated research methods. Emphasis is on preparation and evaluation of a research project.

**PSC 302 PRESIDENT AND CONGRESS 3.0 (3, 0, 0)** Examines the Executive and Congress as both governmental and political institutions, as well as, the ongoing relationship between them.

**PSC 303 PARTIES, CAMPAIGNS AND ELECTIONS 3.0 (3, 0, 0)** Examines the roles of parties and groups as links between the people and government in America. Emphasis is on campaigns and elections.

**PSC 310 U S FOREIGN POLICY 3.0 (3, 0, 0)** Examines the content and process of U.S. foreign policy since World War II. Emphasis is on interests, objectives, and strategies in key regions as well as domestic forces and constraints.

**PSC 315 TOPICS IN COMPARATIVE POLITICS 3.0 (3, 0, 0)** Examines in depth the government and politics of a particular country or group of countries (e.g. Canada, Communist systems, developing countries, the European Community).

**PSC 320 TOPICS IN PUBLIC POLICY 3.0 (3, 0, 0)** Examines the public policy process from issue, creation to program evalua-

tion for selected topics such as civil rights, equal opportunity, family services, occupational and product safety, and victim's compensation. May be taken for a total of six credits.

**PSC 331 WESTERN POLITICAL THOUGHT 3.0 (3, 0, 0)** Examines major issues and thinkers from Plato to Rousseau. Emphasis is on such concepts as power, authority, obedience, freedom, equality, justice, and the ideal society.

**PSC 333 MODERN IDEOLOGIES 3.0 (3, 0, 0)** Examines the development and impact of modern ideologies from the French Revolution to the present. Emphasis is on liberalism, conservatism, socialism, anarchism, nationalism, and less prominent variations of these.

**PSC 334 PUBLIC OPINION AND POLITICAL BEHAVIOR 3.0 (3, 0, 0)** Examines the opinion formation process, linkages of opinion and behavior, and the role of public opinion in the political process. Emphasis is on preparation, administration, and evaluation of a public opinion survey.

**PSC 404 CONSTITUTIONAL LAW 3.0 (3, 0, 0)** Examines general principles of the U.S. constitutional system and the role of the judiciary in interpreting individual rights.

**PSC 410 GLOBAL ISSUES 3.0 (3, 0, 0)** Examines global interdependence in the context of such issues as ecology, technology, human rights, arms control, development, international law and institutions. Emphasis is on interdisciplinary perspectives and approaches.

**PSC 450 INTERNSHIP 0.0 (0, 0, 0)** Designed to give actual experience in the work of an agency and an understanding of the agency's position in the community. Further, the intern should become aware of the agency's philosophy and goals, the formal and informal organization of the agency, and the role for the agency in the political system.

**PSC 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**PSY 101 INTRODUCTION TO GENERAL PSYCHOLOGY 3.0 (3, 0, 0)** Designed to familiarize students with the application of scientific psychology to human life. Emphasis is on "normal" behavior and its antecedents. It includes the study of broad categories of human behavior through various psychological models.

**PSY 151 INTRODUCTION TO APPLICATIONS OF PSYCHOLOGY 1.0 (1, 1, 1)** Taken by psychology majors in conjunction with PSY 101. Designed to acquaint the student with the major, graduate training options, and career possibilities in psychology and related fields.

**PSY 201 TESTS AND MEASUREMENTS OF PSYCHOLOGY 3.0 (3, 0, 0)** A study of the theory and techniques of behavior assessment, emphasizing computerized methods. It surveys psychological tests and their applications. Prerequisite: PSY 101, MA 125 is recommended.

**PSY 202 SURVEY AND DATA ANALYSIS 3.0 (3, 0, 0)** The study of non-experimental and survey techniques used in the behavioral sciences. Emphasis is on survey design, computerized data analysis using SPSS-X, and report writing. Prerequisite: MA 125, PSY 101 and 201.

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**PSY 203 (SOC) TELEPHONE SURVEY RESEARCH 3.0 (1, 2, 0)** Provides training in applied social research. Students are directly involved in the construction of an interview schedule, selecting a sample, conducting telephone interviews, coding and analyzing data, and writing a report.

**PSY 210 PSYCHOLOGY OF FAMILY RELATIONS 3.0 (3, 0, 0)** This survey course covers the psychological dynamics of the family as a unit, parent-child interactions, the effect of developmental events on the psychology of the family, divorce, single parent families, etc. Class discussion, psychodrama, and video tapes are used to illustrate these concepts.

**PSY 212 HUMAN SEXUALITY 3.0 (3, 0, 0)** Provides a survey of scientific findings in the area of human sexual behavior, including topics of current interest and controversy as well as the traditional issues.

**PSY 250 EXPERIMENTAL DESIGN I 4.0 (3, 0, 2)** Studies the design of controlled experiments as well as quasi-experiments in the behavioral sciences. Prerequisite: MA 125 and PSY 101.

**PSY 290 LIFE SPAN DEVELOPMENT 3.0 (3, 0, 0)** Provides a broad spectrum of developmental processes, starting with conception and continuing through the life span to the elderly. The effects of the environment and heredity on biological, psychological, and sociological development are also studied. Prerequisite: PSY 101 or permission of instructor.

**PSY 291 ABNORMAL PSYCHOLOGY 3.0 (3, 0, 0)** Provides a general introduction to the field of abnormal psychology. Major models of psychopathology and the causes and symptoms of abnormal thinking and behavior are considered. Prerequisite: PSY 290 or permission of instructor.

**PSY 300 HELPING SKILLS 3.0 (3, 0, 0)** Designed to help students develop effective listening and interpersonal skills for conducting counseling. The primary emphasis of this course is on (1) the application of counseling and psychological theory to actual casework and (2) the development of counseling skills through observing and conducting peer counseling sessions. Prerequisite: PSY 101 and upper division standing.

**PSY 301 THEORIES OF COUNSELING 3.0 (3, 0, 0)** Considers the major theories of psychological treatment and behavior change. The major theories covered will include: psychodynamic, humanistic, transactional analysis, behavior, and cognitive therapies. Special emphasis will be placed on utilizing therapeutic models in group treatments. Prerequisite: PSY 101 and upper division standing.

**PSY 305 (ED) EDUCATIONAL PSYCHOLOGY 3.0 (3, 0, 0)** A study of the application of learning theory principles to the educational and institutional setting. Provides demonstrations and field experiences to enhance the applicability of these principles. Prerequisite: PSY 101.

**PSY 310 SOCIAL PSYCHOLOGY 3.0 (3, 0, 0)** Covers the individual aspects of social behavior. Attention is focused on problems in perception, thinking, and motivation. The following topics are examined: theories of person perception, attitude formation, personality structure, motivational determinants of group membership and social conformity, social roles and leadership. Prerequisite: PSY 101.

**PSY 311 INTRODUCTION TO SMALL GROUP PROCESSES 3.0 (3, 0, 0)** Basic principles of small group process are examined through didactic and experiential approaches. Applications in various settings are examined.

**PSY 312 DEVIANT BEHAVIOR AND SOCIAL PROCESS 3.0 (3, 0, 0)** Psychological theories of deviant behavior are studied. Major areas include: sexual deviations, prostitution, juvenile delinquency, suicide, obesity, drug addiction, etc., and the various treatment modalities. Prerequisite: PSY 101.

**PSY 313 PSYCHOLOGY OF INTERVIEWING 3.0 (3, 0, 0)** An introduction to theoretical, methodological, and technical considerations of interviewing from a psychological perspective. Designed for those interested in the applications of interviewing in an industrial or organizational setting. Skill development is emphasized.

**PSY 320 CHILD PSYCHOLOGY 3.0 (3, 0, 0)** An in-depth study of development starting with conception and ending with adolescence. Physical, social/emotional, and cognitive development receive primary emphasis.

**PSY 321 ADOLESCENT PSYCHOLOGY 3.0 (3, 0, 0)** Begins with changes occurring as a result of puberty and ends with the transition to young adulthood. The results of the interaction between heredity and the environment as they effect adolescent development are a major focus of the course.

**PSY 322 GERONTOLOGICAL PSYCHOLOGY 3.0 (3, 0, 0)** Effects of aging on individuals and their interactions with their environment and society are the major focus of this course. Adaptation to the changes that occur with aging is also emphasized.

**PSY 323 COGNITIVE AND MORAL DEVELOPMENT 3.0 (3, 0, 0)** Acquaints students with basic concepts in cognitive and moral development. It focuses on current theories and research such as the work of Piaget and Kohlberg.

**PSY 324 ADULT DEVELOPMENT 3.0 (3, 0, 0)** A study of the stages of young and middle adulthood. Interindividual differences and changes within the individual, as they occur over the first two stages of adulthood, are emphasized.

**PSY 330 DRUGS AND BEHAVIOR 3.0 (3, 0, 0)** A comprehensive overview of drug use and abuse in American society. Students are provided with a behavioral framework for understanding drug consumption through review of major pharmacological and social variables. Prerequisite: PSY 101.

**PSY 331 PSYCHOLOGY OF CONSCIOUSNESS 3.0 (3, 0, 0)** Emphasizes research and applications relevant to the psychology of consciousness and altered states. Prerequisite: PSY 101 or equivalent and junior standing.

**PSY 332 PSYCHOLOGY OF STRESS MANAGEMENT 2.0 (2, 0, 0)** Provides an overview of stress and stress-related dysfunction. Techniques for prevention of stress are emphasized through demonstration and student participation. Prerequisite: PSY 101 or equivalent and junior standing or permission of instructor.

**PSY 333 INTRODUCTION TO BIOFEEDBACK TECHNIQUES 1.0 (1, 0, 0)** Theory and applications of biofeedback technol-

ogy to pain, psychosomatic, and other stress-related problems. Prerequisite: PSY 101 and junior standing or permission of instructor.

**PSY 350 EXPERIMENTAL I: LEARNING** 3.0 (3, 0, 0) Surveys theories, research methodologies, and findings in the area of learning. May be taken with or without PSY 350L. Prerequisite: PSY 250 or permission of instructor.

**PSY 350L EXPERIMENTAL I: LEARNING LABORATORY** 1.0 (0, 0, 0) Provides a working knowledge of research methodology and skills in psychological investigation. Students design and conduct research under instructor supervision. May be taken with or without PSY 350. Prerequisite: PSY 250 or equivalent and prior or concurrent course in experimental psychology.

**PSY 351 EXPERIMENTAL II: PERCEPTUAL PROCESSES** 3.0 (3, 0, 0) Basic phenomena of the senses, their physiological correlates, and integration into complex perception are reviewed. May be taken with or without PSY 351L. Prerequisite: PSY 250 or permission of instructor.

**PSY 351L EXPERIMENTAL II: PERCEPTUAL PROCESSES LABORATORY** 1.0 (0, 0, 0) Provides a working knowledge of research methodology and skills in psychological investigation. Students design and conduct research under instructor supervision. May be taken with or without PSY 351. Prerequisite: PSY 250 or equivalent and prior or concurrent course in experimental psychology.

**PSY 410 INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY** 3.0 (3, 0, 0) Examines the application of psychology to business, industry, and marketing. Prerequisite: PSY 101.

**PSY 421 DEATH AND DYING** 3.0 (3, 0, 0) Provides an overview of the psychological aspects of death and dying in our society. Topics include attitudes toward and preparation for death, the terminally ill patient, funeral rituals and burial, mourning and grief, and suicide and euthanasia. Classroom material is supplemented by the student's self-exploration and writing on feelings, attitudes, and beliefs about death.

**PSY 422 PSYCHOLOGY OF WOMEN** 3.0 (3, 0, 0) An in-depth study of how psychological development, life experiences, and social change interact to affect women's development across the life span. Dual listed with 522.

**PSY 430 THEORIES OF PERSONALITY** 3.0 (3, 0, 0) Considers major personality theories ranging from psychoanalytic to humanistic and behavioral models. Papers and discussion concentrate on examining merits and limitations of various theories.

**PSY 445 ADVANCED COUNSELING TECHNIQUES** 3.0 (3, 0, 0) Provides advanced training in counseling skills for students in the helping professions (nursing, social work, counseling/clinical psychology, criminal justice, etc.). Emphasis placed on diagnosis and treatment of clients requiring long-term intervention. Special emphasis will be placed on diagnosis and treatment of personality disorders. Prerequisite: PSY 291 and 300 or permission of instructor. Dual listed with 545.

**PSY 460 PHYSIOLOGICAL PSYCHOLOGY** 3.0 (3, 0, 0) Emphasizes physiological aspects of behavior through knowledge

of the neurological structure and function. May be taken with or without PSY 460L. Prerequisite: PSY 250 or permission of instructor.

**PSY 460L PHYSIOLOGICAL PSYCHOLOGY LABORATORY** 1.0 (0, 0, 0) Provides a working knowledge of research methodology and skills in psychological investigation. Students design and conduct research under instructor supervision. May be taken with or without PSY 460. Prerequisite: PSY 250 or equivalent and prior or concurrent course in experimental psychology.

**PSY 461 EXPERIMENTAL SOCIAL PSYCHOLOGY** 4.0 (1, 3, 3) Research designs and methods for the study of problems in social psychology are critically examined. Covers experimental projects with questionnaires, scales, interviews, and observation methods. Problems of sampling and data analysis are also considered. Prerequisite: PSY 101 or permission of instructor.

**PSY 462 BEHAVIOR MODIFICATION** 3.0 (3, 0, 0) Provides an introduction to a variety of techniques for altering behavior based on learning principles. May be taken with or without PSY 462L. Prerequisite: PSY 101.

**PSY 462L BEHAVIOR MODIFICATION LABORATORY** 1.0 (0, 0, 0) Provides a working knowledge of research methodology and skills in psychological investigation. Students design and conduct research under instructor supervision. May be taken with or without PSY 462. Prerequisite: PSY 250 or equivalent and prior or concurrent course in experimental psychology.

**PSY 490 SENIOR SEMINAR** 3.0 (3, 0, 0) Psychology majors are presented the formal opportunity to explore professional functions of psychologists and human service workers in related roles, as well as, various areas of current interest in applied psychology. Prerequisite: Senior standing or permission of instructor.

**PSY 491 SEMINAR IN HUMAN RESOURCE MANAGEMENT** 3.0 (3, 0, 0) Review and discuss current issues in personnel administration and human resource management. Practical demands of the work situation are emphasized. Prerequisite: upper division status or permission of instructor and chairperson.

**PSY 495 PRE-PROFESSIONAL EXPERIENCE** 6.0 (0, 0, 0) Provides practical experience and beginning skills to selected students. The experience will focus on applied skills, community service or research work in settings appropriate to the students' interests and curriculum, including mental health and other human service programs, hospitals, personnel offices, and industrial or governmental agencies. The goal is to relate theoretical learning to practical application. Prerequisite: Consent of department chairperson based on the recommendations of the department preprofessional committee. May be taken for six through fifteen credits.

**PSY 496 RESEARCH APPRENTICESHIP** 6.0 (0, 0, 0) Designed to provide students with intensive experiences in empirical research under close supervision. Qualified students will become involved in ongoing research projects, working along with experienced researchers. Students are encouraged to serve their apprenticeship at other campuses or institutional settings. may be taken for six through fifteen credits.

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**PSY 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**RPL 102 INTRODUCTION TO REGIONAL PLANNING 3.0 (3, 0, 0)** Examines regional planning as a tool for shaping the future man-made and natural environment. Introduces man/land relationships that affect community well-being, the tools used by government in managing these relationships for public benefit; and programs, politics, and activities required in recent planning legislation.

**RPL 342 LAND-USE POLICY 3.0 (3, 0, 0)** An interpretive synthesis of the precepts and concepts of land-use that encourage and discourage geographic patterns on a changing landscape. Familiarizes the student with the economic, social, and political processes that are especially important for planning which is intended to move regions toward a particular goal.

**RPL 352 RECREATIONAL LAND-USE PLANNING 3.0 (3, 0, 0)** An inquiry into the meaning, types, and demands of society's recreational activities. Planning emphasis will be given to the definition of problems and purposes and to the consideration of alternative resources for recreation, both physical and cultural.

**RPL 460 TRANSPORT SYSTEMS 3.0 (3, 0, 0)** Analysis of the spatial principles and networks of transport systems, including factors of route location, theories of interaction, and the role of transport in space-economy.

**RPL 480 TOPICAL SEMINARS 3.0 (3, 0, 0)** Discussion of selected problems, techniques, and research in the field of urban and regional planning.

**RPL 494 PLANNING SEMINAR 3.0 (3, 0, 0)** Practical application of techniques learned in previous courses to typical planning problems.

**RPL 496 PLANNING INTERNSHIP 12.0 (0, 0, 0)** Provides experience in regional or corporate planning offices to apply knowledge and skills of planning under the supervision of qualified planners. Observations, conferences, and an evaluation is made by the supervisory agency.

**RPL 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**RTH 101 RESPIRATORY THERAPY I 3.0 (3, 0, 0)** Examines the scientific principles underlying the safe administration of medical gases and aerosols to patients in the hospital setting.

**RTH 102 RESPIRATORY THERAPY II 4.0 (3, 0, 2)** Classroom instruction and laboratory practice of fundamental respiratory care assessment and therapeutic procedures. Assessment topics include: chest physical examination, chest x-rays, electrocardiograms, and bedside pulmonary function tests. Therapeutic topics include: oxygen and aerosol therapy, hyperinflation therapies, chest physical therapy, airway management, and cardiopulmonary resuscitation. Prerequisite: RTH 101.

**RTH 103 RESPIRATORY THERAPY III 4.0 (3, 0, 2)** Classroom instruction and laboratory practice in the management of patients requiring continuous mechanical support of ventilation. Prerequisite: RTH 102.

**RTH 104 RESPIRATORY THERAPY IV 3.0 (3, 0, 0)** Examines cardiovascular problems, advanced cardiopulmonary monitoring techniques, special procedures, pulmonary rehabilitation, and home care. Prerequisite: RTH 103.

**RTH 107 CLINICAL PRACTICUM I 1.0 (1, 0, 8)** Introduction to the clinical practice of respiratory care. Provides experience in the administration of oxygen, aerosols, hyperinflation therapies, chest physical therapy, and artificial airway care. Examines the fundamentals of arterial blood gas sampling and analysis. Prerequisite: RTH 101 concurrent with 102.

**RTH 108 CLINICAL PRACTICUM II 3.0 (1, 0, 40)** Designed to achieve competence in the administration of routine respiratory therapy modalities and competence in arterial blood gas sampling and analysis. Students will accompany pulmonary physicians on patient rounds and rotate through other clinical areas of the hospital. Prerequisite: RTH 102 and 107.

**RTH 109 CLINICAL PRACTICUM III 2.0 (1, 0, 16)** Application of respiratory care to the patient in the critical care unit. Emphasis is on the management of adult and pediatric patients requiring mechanical support of ventilation. Prerequisite: RTH 108 concurrent with 103.

**RTH 110 CLINICAL PRACTICUM IV 3.0 (1, 0, 24)** Continuation of RTH 109. Designed to achieve competence in the performance of all critical care procedures performed by the respiratory therapists. Prerequisite: RTH 109 concurrent with 104.

**RTH 201 PULMONARY PHYSIOLOGY 3.0 (3, 0, 0)** Detailed discussion of the fundamental physiology of the human respiratory system. Techniques used in the hospital pulmonary function laboratory to assess abnormal lung function are described and demonstrated, and an interpretation of the results of pulmonary function testing and arterial blood gas analysis is included. Prerequisite: BIO 121.

**RTH 204 PHARMACOLOGY 2.0 (2, 0, 0)** Examines the action and uses of pharmacologic agents. Emphasis is on drugs used in the diagnosis and treatment of cardiac and pulmonary disease, and includes the calculation of dosages and solutions.

**RTH 206 INTRODUCTION TO DISEASE 2.0 (2, 0, 0)** Introduction to the disruption of life's healthful mechanisms. Topics include: cellular and tissue response to injury, inflammation and repair, circulatory disease, immunopathology, neoplasia, genetic diseases, and infectious disease. Provides knowledge of the fundamental processes that underlie disease to facilitate a better understanding of specific diseases encountered later. Prerequisite: BIO 103 and 104.

**RTH 207 PULMONARY DISEASE 2.0 (2, 0, 0)** Introduction to common pulmonary disorders and their management. Topics include chronic obstructive pulmonary disease, restrictive pulmonary disorders, infectious pulmonary disease, pulmonary vascular disease, pulmonary pathology due to trauma, neonatal cardiopulmonary disease, and pediatric pulmonary disease. Prerequisite: RTH 206.

**RTH 208 PERINATAL/PEDIATRIC RESPIRATORY CARE 2.0 (2, 0, 0)** Examines respiratory physiology and pathophysiology relevant to the newborn and pediatric patient. The principles, techniques, and equipment relied upon in providing respiratory

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care to this age group are identified and demonstrated. Prerequisite: RTH 102.

**RUS 101 INTRODUCTORY RUSSIAN I** 3.0 (3, 3, 0) Oral alphabet drill, written alphabet drill, study of specific letters and sounds, pronunciation and orthography, personal pronouns, present tense, first conjugation verbs, accusative of personal pronoun questions, indirect questions and negation, present tense, second conjugation verbs, reflexive verbs, gender of nouns, Russian expression for TO HAVE, accusative of nouns (direct objects), verbs of going, months and years with numbers, prepositional case of nouns, possessive pronouns/adjectives. Prerequisite: proven foreign language ability.

**RUS 102 INTRODUCTORY RUSSIAN II** 3.0 (3, 3, 0) Dative case of pronouns; double negatives, conjunctions. Noun plurals, stress shift in plurals, geographical information, expressions with dative, demonstrative pronouns, adjectives, superlative degree, past tense, future tense, accusative of adjectives/possessive pronouns, relative pronouns, partitive genitive, instrumental case with prepositions. Prerequisite: proven foreign language ability.

**RUS 201 INTERMEDIATE RUSSIAN I** 3.0 (3, 3, 0) The perfective and imperfective aspect of verbs, dates and the negative case, dative case of nouns, adjectives and pronouns, instrumental case without prepositions, relative pronouns, partitive genitive, passive voice, instrumental case with prepositions, masculine nouns with stressed endings, genitive plural, adjectives modified by numbers, dative, instrumental and prepositional plural, indefinite pronouns, adjectives and adverbs, comparative degree of adjectives and adverbs, reading of simple texts. Prerequisite: RUS 101 and 102 or equivalent.

**RUS 202 INTERMEDIATE RUSSIAN II** 3.0 (3, 3, 0) Conditional, subjunctive mood, verbs of going, running, taking, bringing, carrying, leading, prefixed verbs of motion, additional information about perfective/imperfective verbs, verbal adverbs, declension of last names, participles: present active, past active, present passive, past passive, review of semesters and previous grammar, further reading of simple Russian texts. Prerequisite: RUS 101 and 102 or equivalent.

**RUS 370-380 FOREIGN STUDY - CREDIT ARRANGED** 0.0 (0, 0, 0) Open to students who wish to study abroad. Plans for foreign study should be presented at least one semester prior to departure. Number of credits granted will be based upon validated credentials presented to the department. The student should register for RUS 370-380 prior to departure. Students should consult the regulations for study-abroad available in the Office of the Provost/Vice President for Academic Affairs.

**SOC 101 INTRODUCTION TO SOCIOLOGY** 3.0 (3, 0, 0) Introduction to the basic concepts, premises, and techniques involved in the scientific approach to the study of human societies. Analysis is made of selected aspects of social behavior at interpersonal, intergroup, and societal levels of contemporary American society.

**SOC 121 CONTEMPORARY SOCIAL PROBLEMS** 3.0 (3, 0, 0) Survey of social problems confronting American society today. Special attention is given to variant theoretical and social policy approaches to social problems.

**SOC 200 AMERICAN MINORITIES** 3.0 (3, 0, 0) An investigation of the individual and group processes by which the United States has been peopled and of the resulting racial, religious, and ethnic communities. Consideration will be given to the similarities and differences in the values and experiences of a variety of groups and to the relative strength of tendencies toward assimilation and toward preservation of distinguishing characteristics. Prerequisite: ANH 101 or SOC 101.

**SOC 203 (PSY) TELEPHONE SURVEY RESEARCH** 3.0 (3, 0, 0) Provides training in applied social research. Students are directly involved in constructing an interview schedule, selecting a sample, conducting telephone interviews, coding and analyzing data, and writing a report.

**SOC 213 LIBRARY RESEARCH IN THE SOCIAL SCIENCES** 1.0 (1, 0, 0) Provides a thorough background in library research sources and techniques relevant to the needs of CJA, SOC/ANH, and SWK majors. Prerequisite: sophomore standing.

**SOC 232 AMERICAN FAMILY SYSTEMS** 3.0 (3, 0, 0) Examines the family throughout the life cycle. Focus is on the life styles of contemporary families, the influence of values upon family life, and issues affecting individuals and families.

**SOC 301 ORGANIZATIONAL BEHAVIOR** 3.0 (3, 0, 0) Examines the social dimensions of work organizations including formal and informal interaction patterns, leadership, and organizational culture. Prerequisite: ANH 101 or SOC 101.

**SOC 302 COMMUNITY** 3.0 (3, 0, 0) Examines the various types of communities as social systems. Special attention is given to total institutions.

**SOC 304 PUBLIC OPINION** 3.0 (3, 0, 0) Analysis of the role of public opinion in the political system. Examines the process by which political opinions are formed, communicated, and influence political behavior. Designs and administers a survey to measure political opinions. Prerequisite: SOC 101.

**SOC 305 SOCIOLOGY OF RELIGION** 3.0 (3, 0, 0) Analysis of the interrelationships between religion and other aspects of society particularly with reference to the problems of order and change. Prerequisite: ANH 101; SOC 101 desirable.

**SOC 306 INTERRACIAL SEMINAR** 3.0 (3, 0, 0) Examination of personal and institutional aspects of interracial relationships. Emphasis is on participative exploration through the use of controlled observations, simulations, role playing, and similar techniques.

**SOC 307 SOCIAL RESEARCH I: RESEARCH DESIGN DATA COLLECTION** 3.0 (3, 0, 0) An introduction to the logic and techniques of the social research process. Special attention is given to construction of questions, mailed questionnaires, and interviewing techniques. Prerequisite: SOC 101.

**SOC 308 SOCIAL RESEARCH II: ANALYSIS, INTERPRETATION, AND APPLICATIONS** 3.0 (3, 0, 0) Techniques and procedures for processing social science data. Ability to develop and evaluate research reports and to judge how findings may be applied to improve social work practices are primary goals of the course. Previous training in statistics strongly recommended.

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**SOC 321 FUTURISTIC SOCIETY 3.0 (3, 0, 0)** An investigation of the social impact of technological and social innovations. Special attention is given to the construction of scenarios.

**SOC 322 SOCIOLOGY OF AGING 3.0 (3, 0, 0)** Analyzes the influence of social interaction upon the process, stages, and problems of aging, particularly of older age. Student-conducted oral history is utilized not only as a catalyst for intergenerational understanding and respect, but also as a therapeutic social work technique designed to enhance the self-image of older people by having them look back over their personal histories and through that process help them to meet the human need to attain a self-appreciation of the validity and significance of their lives. Dual listed with 522.

**SOC 340 DOCUMENTARY PHOTOGRAPHY 3.0 (2, 0, 2)** Explores social relations with the camera. Examines the use of photographs as tools of inquiry, documentation, and data for social analysis. Studies problems related to cultural features affecting visual perception and reportage.

**SOC 350 SELECTED TOPICS SEMINAR 0.0 (0, 0, 0)** Review of a specialty area in anthropology, sociology or the study of a problem from an interdisciplinary position. Prerequisite: upper division standing and permission of instructor. May be taken for one through six credits.

**SOC 351 POPULATION ECOLOGY 3.0 (3, 0, 0)** Examines the spatial aspects of world population, numbers, densities, and qualities. Emphasizes the economic and social characteristics and mobility of the worlds population. Prerequisite: SOC 101.

**SOC 410 SOCIOLOGICAL/ANTHROPOLOGICAL THEORY 3.0 (3, 0, 0)** Examines the basic sociological and anthropological theories. Initial focus is on classic theories, emphasis then is on contemporary theories. Functionalist, conflict, and interactionist theories are reviewed. Prerequisite: ANH 101, SOC 101, one other course in Anthropology or Sociology and upper division standing.

**SOC 412 RURAL FIELD STUDY 3.0 (3, 0, 0)** Intensive examination of a social setting. Focuses on discerning patterns in social behavior and on imparting a socio-cultural understanding. May be taken for a total of six credits. Prerequisite: six credits in Anthropology and Sociology and/or permission of instructor.

**SOC 415 AMERICAN VALUES IN CONFLICT 3.0 (3, 0, 0)** Analyzes American values and values conflicts from a sociological perspective, placing such values and conflicts within a context of ideological orientation, ethnic/racial and social class diversity, group interaction, socio-cultural change, and societal policy.

**SOC 421 URBAN SOCIETY 3.0 (3, 0, 0)** Intensive study of the social structure of urban communities. Primary focus is on dominant institutional features and problems of social integration and change. Prerequisite: six credits in Anthropology or Sociology and/or permission of instructor; SOC 302 desirable.

**SOC 430 SOCIOLOGY OF DEVIANCE 3.0 (3, 0, 0)** An introduction to sociological theories of deviance and the new perspectives in criminology. Explores community and social bases of juvenile delinquency and crime. Prerequisite: six credits in Sociology or permission of instructor. Dual listed with 530.

**SOC 441 ORGANIZATIONAL INTERNSHIP 6.0 (0, 0, 0)** Provides experience in the regular activities of a business, government agency, or social service organization. Students will prepare an analysis of the organizations role system and its real or potential area of stress. May be taken from six through fifteen credits. Prerequisite: permission of instructor; SOC 301 strongly recommended.

**SOC 460 SOCIOLOGY OF HEALTH AND MEDICINE 3.0 (3, 0, 0)** Review of research and social issues bearing on health and medical practice in American society. Aspects covered include cross-cultural and social class comparisons, sick roles, professionalization process, hospital organization, ideological issues, and public opinion.

**SOC 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**SPA 101 INTRODUCTORY SPANISH I 3.0 (3, 0, 0)** For students who have not previously studied Spanish. Fundamentals of grammar, intensive drill in pronunciation, comprehension, and speaking. Two hours language laboratory required weekly.

**SPA 102 INTRODUCTORY SPANISH II 3.0 (3, 0, 0)** Continuation of 101, two hour language laboratory weekly. Prerequisite: SPA 101 or equivalent.

**SPA 201 INTERMEDIATE SPANISH I 3.0 (3, 0, 0)** Continuation of 102, grammar review. Prerequisite: SPA 102 or equivalent.

**SPA 202 INTERMEDIATE SPANISH II 3.0 (3, 0, 0)** Continuation of 201. Prerequisite: SPA 201 or equivalent.

**SPA 205 PRONUNCIATION AND PHONETICS 1.0 (1, 0, 1)** Analysis of Spanish phonetics. Emphasizes oral drills for English-speakers seeking to acquire Spanish accent. Prerequisite: SPA 102.

**SPA 300 SPANISH CONVERSATION 3.0 (3, 0, 0)** Practice in oral self-expression and comprehension. Selected topics assigned for each class. Prerequisite: SPA 202 or permission of instructor.

**SPA 305 SPANISH CONVERSATION AND COMPOSITION 3.0 (3, 0, 0)** Intensive development of oral expression and self-expression in writing for students desiring a higher level of oral fluency and proficiency in writing. Class is conducted in Spanish. Prerequisite: SPA 202 or permission of instructor.

**SPA 306 THE CULTURE AND CIVILIZATION OF SPAIN 3.0 (3, 0, 0)** Examines the history of customs and institutions of Spain. Emphasizes the effect of history on general culture and customs of present-day Spain. Prerequisite: SPA 202 or equivalent.

**SPA 307 THE CULTURE AND CIVILIZATION OF LATIN AMERICA 3.0 (3, 0, 0)** Studies the history, customs and politics of Latin America. Emphasizes general characteristics: race, religion, life style, etc. Prerequisite: SPA 202 or equivalent.

**SPA 320 ADVANCED SPANISH STRUCTURE 3.0 (3, 0, 0)** Study and application of Spanish structural patterns; emphasizes syntax. Prerequisite: SPA 202 or equivalent.

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**SPA 330 SURVEY OF SPANISH LITERATURE I** 3.0 (3, 0, 0) Examines the most important writers of Spain through 17th century; attention given to literary movements, historical backgrounds, style and form. Prerequisite: SPA 300, 305, 306, 307, 320 or permission of instructor.

**SPA 331 SURVEY OF SPANISH LITERATURE II** 3.0 (3, 0, 0) Continuation of 330. Prerequisite: SPA 300, 305, 306, 307, 320 or permission of instructor.

**SPA 340 SPANISH-AMERICAN LITERATURE I** 3.0 (3, 0, 0) Examines the major Spanish-American writers and movements through Realism and Naturalism. Prerequisite: SPA 300, 305, 306, 307, 320 or permission of instructor.

**SPA 341 SPANISH-AMERICAN LITERATURE II** 3.0 (3, 0, 0) Continuation of 340 from Modernism to the present. Prerequisite: SPA 300, 305, 306, 307, 320 or permission of instructor.

**SPA 370-380 FOREIGN STUDY - CREDIT ARRANGED** 0.0 (0, 0, 0) Open to students who wish to continue the study of Spanish abroad. Plans for foreign study should be presented at least one semester prior to departure and should be approved by the department chairperson. Number of credits granted will be based upon validated credentials presented to the department. The student should register for SPA 370-380 prior to departure. Students should consult the regulations for study-abroad available in the Office of the Provost/Vice President for Academic Affairs.

**SPA 400 SENIOR SEMINAR - CREDIT ARRANGED** 0.0 (0, 0, 0) Selected topics in Spanish and Latin American Literature.

**SPA 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**SPE 101 EXCEPTIONAL PERSONS IN SOCIETY** 3.0 (3, 0, 0) Examines the nature and need of persons who are exceptional in emotional, social, physical, and intellectual development, including the gifted and talented. Discussions will include career opportunities, social issues, current trends in Special Education, rehabilitation and related settings. Observation in Special Education settings will be available.

**SPE 201 MENTALLY AND PHYSICALLY DISABLED** 3.0 (3, 0, 0) Introduction to etiology, characteristics, education, management, and laws pertaining to children and adults with mental and physical disabled. Prerequisite: SPE 101 or permission of instructor.

**SPE 301 CURRICULUM DEVELOPMENT ADJUSTMENT** 3.0 (3, 0, 0) Examines curriculum development, adjustments, methods, and materials in Special Education. Studies IEP goals, school organization, grouping, planning unit instruction, teaching-learning process, evaluating pupil progress, and parent and other agency relationships. Prerequisite: SPE 201 or permission of instructor.

**SPE 302 ASSESSMENT** 3.0 (3, 0, 0) Provides students with the skills necessary to diagnose and correct learning problems. Special attention is given to considerations related to the selection of appropriate formal tests (e.g., test bias). Selective diagnostic instruments are examined. Prerequisite: SPE 201 or permission of instructor.

**SPE 303 OBSERVATION AND PARTICIPATION** 3.0 (3, 0, 0) Observation and participation in classroom setting. Emphasizing teaching/learning process, selecting, organizing, and presenting lessons and materials. Projects and demonstrations required.

**SPE 304 PRACTICAL ARTS FOR EXCEPTIONAL PERSONS** 3.0 (3, 0, 0) Provides experience in test analysis and skill sequencing with emphasis of foods, woodworking, sewing, and related homemaking skills. Prerequisite: permission of instructor.

**SPE 310 COMMUNICATION DISORDERS** 3.0 (3, 0, 0) Introduction to the nature of specific speech, hearing and language disorders.

**SPE 320 GIFTED AND TALENTED** 3.0 (3, 0, 0) Considers the characteristics of the gifted and talented. Introduces teaching procedures, program types, curriculum materials, and research.

**SPE 321 METHODS FOR THE GIFTED** 3.0 (3, 0, 0) Examines curriculum, methods, materials, and resources in the education of the gifted and talented. Includes analysis and demonstration of leading materials and strategies. Case studies, field visits, and teaching simulations are provided. Prerequisite: permission of instructor.

**SPE 330 CULTURAL DIVERSITY IN SPECIAL EDUCATION** 3.0 (3, 0, 0) Studies the definitions, causes, characteristics, and education of children and youth from multicultural environments. Considers problems in social-psychological context with implications for programs of improvement and research.

**SPE 340 CHILDREN IN NEED OF EMOTIONAL SUPPORT** 3.0 (3, 0, 0) Examines the etiology of emotional disturbance with concentration on the characteristics, diagnostic procedures, therapy, educational strategies, instructional materials, and relevant research in relation to the education of emotionally disturbed children and youth. Includes observation and child study experience.

**SPE 345 BEHAVIOR MANAGEMENT** 3.0 (3, 0, 0) Studies the implications of behavior theory as classroom teaching techniques. Conditioning of both academic skills and non-academic behaviors on an individual and group is stressed. Direct experience in modifying the behavior of exceptional children will be arranged.

**SPE 360 EXCEPTIONAL CHILDREN IN REGULAR CLASSES** 3.0 (3, 0, 0) Develops an understanding of the rationale and procedures for mainstreaming exceptional children. Examines legal and philosophical rationales and current developments in mainstreaming are discussed. Major mainstreaming models will be studied, including problems and issues relevant to each technique.

**SPE 375 RESIDENTIAL FACILITIES FOR THE DISABLED** 3.0 (3, 0, 0) Explores the many types of residential facilities, from institutions to independent living, used to house the disabled. The exploration will include philosophies, regulations, policies, and standards applied to facilities. Client programming, staff training, and supportive community agency services will be examined.

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**SPE 377 ADULT DISABILITIES 3.0 (3, 0, 0)** Covers a broad range of disabilities in adulthood including physical, mental, and learning disabilities, including emotional problems. Emphasis will be on current program trends, issues, services, research on adult learning and adjustment, and implications for the helping professions.

**SPE 391 THE EXCEPTIONAL PERSON IN THE UNITED STATES AND EUROPE - A COMPARATIVE 3.0 (3, 0, 0)** Designed to provide a comparative study of the United States and Europe of the care, treatment, and rehabilitation of exceptional persons from birth through adulthood. Study involves contact with families of exceptional individuals and professionals providing services on both continents.

**SPE 400 STUDENT TEACHING 12.0 (0, 0, 0)** (By arrangement) Opportunity to apply knowledge and skills acquired in professional preparation. Accomplished by a field experience under the supervision of master teachers in two different special classes in university established centers. Observations and conferences are scheduled by the departmental supervisor. Prerequisite: 2.5 QPA.

**SPE 404 EARLY CHILDHOOD DISABILITIES 3.0 (3, 0, 0)** Examines the nature, needs, and education of young disabled children in infant-toddler, preschool, and primary programs. Emphasis will be on identification, multi-disciplinary educational planning, parent counseling, agencies, and services. Coverage will include special classes, resource rooms, and mainstream education including curriculum, methods, and materials plus the roles of other professionals. Observations and child studies are required. Prerequisite: permission of instructor.

**SPE 410 PROFESSIONAL SEMINAR 3.0 (3, 0, 0)** Designed to develop and refine the professional competencies of the special education major prior to the field experience and/or accepting a professional position. Coverage includes general orientation to the profession, current issues, school organization and administration, techniques for seeking a professional position, the scope of the field of special education, and professional responsibilities.

**SPE 430 TECHNOLOGY IN SPECIAL EDUCATION 3.0 (3, 0, 0)** Introduction to and overview of the possibilities provided by microcomputers in assisting the exceptional learner. Provides initial skill and knowledge in using the microcomputer. Exposure will be made to available resources, selection and evaluation of course ware, adaptive devices, curriculum, correlation, and classroom integration. Dual listed with 530.

**SPE 435 METHODS I: TEACHING CHILDREN IN NEED OF ACADEMIC SUPPORT 3.0 (3, 0, 0)** Provides organizational procedures, curriculum practices, methods and techniques used in educating mildly handicapped students K-12 in need of academic learning support. Emphasis is placed on direct teaching, collaborative practices, transitional planning, and curriculum adaptation. Prerequisite: SPE 101 and 301.

**SPE 440 METHODS II: CHILDREN IN NEED OF LIFE SKILLS SUPPORT 3.0 (3, 0, 0)** Study of the nature and needs of school age children with moderate and severe handicapping conditions that include cognitive, health and/or physical impairments. Focus is on the educational and vocational needs of these children from a content base which includes identification, assess-

ment, and remediation practices which are coupled with supportive measures, materials, and techniques. The use of instructional adaptations such as assistive technology will be stressed. Prerequisite: SPE 101 and 301. Dual listed with 508.

**SPE 450 INTERNSHIP 12.0 (0, 0, 0)** A supervised field experience in a professional setting serving the disabled.

**SPE 476 NORMALIZATION AND COMMUNITY RELATIONS 3.0 (3, 0, 0)** Explores the principles of normalization and their application, community attitudes towards the disabled, litigation and legislation, and strategies for public relations for the disabled. Course will emphasize the PASS/PASSING evaluation.

**SPE 480-485 SPECIAL EDUCATION WORKSHOPS 0.0 (0, 0, 0)** Special workshop/seminars focusing on contemporary trends, topics, and problems in the field of special education. May be taken for one through six credits.

**SPE 490 LEARNING DISABILITIES 3.0 (3, 0, 0)** Introduction to the definition, identification, etiology, and epidemiology of learning disabilities with a particular emphasis on methods of differential diagnosis and educational procedure. Remediation strategies, classroom management, and research will be studied.

**SPE 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**SWK 101 HUMAN SERVICES 3.0 (3, 0, 0)** Introduction to the various professional roles, delivery systems, and agencies in human services. Emergent issues, needs, and trends affecting both public and private sectors will be reviewed.

**SWK 200 HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT 3.0 (3, 0, 0)** Focuses on selected and current cultural, sociological, economic, and biological factors that have an impact on the growth and development of the individual organism. Examines the interrelationship of social, cultural, subcultural small groups, and situational factors that influence social development.

**SWK 241 INTRODUCTION TO SOCIAL WORK 3.0 (3, 0, 0)** Analysis of welfare activities as a social movement and of the dominant characteristics of the social welfare institution in America. Attention is given to changing ideologies and to the professionalization of social work practice. Prerequisite: SOC 101; SOC 121 desirable.

**SWK 257 SOCIAL WORK PROGRAM ORIENTATION 1.0 (1, 0, 0)** Acquaints students with the demands of professions in social work education. Examines expected educational outcomes of the social work program in relationship to the required curriculum designed to prepare social work generalists for the beginning social work practice.

**SWK 258 SOCIAL WORKER'S PROFESSIONAL RESPONSIBILITIES 1.0 (1, 0, 0)** Acquaints students with the organization of the profession of social work, ethics of the profession as expressed by the National Association of Social Workers, established standards of practice, and public policy statements and objectives.

**SWK 259 CURRENT PROFESSIONAL ISSUES IN SOCIAL WORK 1.0 (1, 0, 0)** Acquaints the student with the major current issues that affect the delivery of social services to vulnerable populations.

**SWK 308 EVALUATION RESEARCH 3.0 (3, 0, 0)** A systematic approach to assessing community social needs and evaluating social work programs and practice outcomes.

**SWK 315 (HST) EVOLUTION OF SOCIAL WELFARE IN AMERICA 3.0 (3, 0, 0)** Analyzes the socio-economic experience of America's "Have Nots," ideological views of misfortune, social welfare policy and politics, and the evolution of social work.

**SWK 350 SOCIAL WORK METHODS: SMALL GROUPS 3.0 (3, 0, 0)** Examines methods of facilitating group development and group interaction that enhances attempts to solve problems faced by the group and individual members of the group. Prerequisite: SWK 200 and 241.

**SWK 351 SOCIAL WORK METHODS: ORGANIZATIONS 3.0 (3, 0, 0)** Examines social work methods of assessing organizations to identify needs, establish goals for change, and enable the organization to change so as to benefit the individuals, families, and groups that are impacted by it. Prerequisite: SWK 200 and 241.

**SWK 352 SOCIAL WORK METHODS: FAMILIES 3.0 (3, 0, 0)** A basic orientation to social work methods used to assist families to achieve their own goals. A systems approach to analyzing and assisting families is emphasized. Prerequisite: SWK 200 and 241 or permission of instructor. Dual listed with 552.

**SWK 353 SOCIAL WORK METHODS: INDIVIDUALS 3.0 (3, 0, 0)** Examines methods of assisting individuals by employing social work problem-solving strategies designed to enhance social functioning and relieve stress created by adverse social conditions. Prerequisite: SOC 121 and SWK 241.

**SWK 354 CHEMICAL DEPENDENCY TREATMENT 3.0 (3, 0, 0)** Prepares students for entry-level positions in the chemical dependency field. Analyzes global assessment strategy for differential diagnosis, as well as, beginning intervention techniques with the chemically dependent. Prerequisite: junior standing or documentation of work in a chemical dependency field. Dual listed with 554.

**SWK 452 SOCIAL WORK FIELD PLACEMENT 12.0 (0, 0, 0)** Provides on-the-job study and skill training in a recognized social service agency providing services to various consumer groups. Designed to provide for the application of theory to helping processes with persons in need.

**SWK 453 SENIOR SEMINAR 3.0 (3, 0, 0)** Designed to prepare the graduating social worker to participate actively in the process of supervision used by professional social workers. Students will actively participate in a helping relationship during the semester.

**SWK 454 EMPLOYMENT COUNSELING 3.0 (3, 0, 0)** Introduction to the field of employment services. Examines techniques involved in assessing individual skills and job requirements, as well as, sources of manpower information and forecasting. Covers theories of job selection and career develop-

ment. Attention is given to the special problems of individuals undergoing retraining or rehabilitation, physically handicapped, and those having limited skills potential.

**SWK 457 INTERNATIONAL SOCIAL WORK 3.0 (3, 0, 0)** Provides an international perspective for examining the values, concepts, and practices of the social work profession. Introduces knowledge of the cultural, social, economic, and political forces that constitute international communities out of which social problems emerge and from which must be drawn resources for providing social services and solving problems.

**SWK 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**THT 110 INTRODUCTION TO THEATRE 3.0 (3, 0, 0)** Survey of drama and the art and craft of the theatre. Content doesn't necessarily include practice in applied theatre.

**THT 210 STAGECRAFT 3.0 (3, 0, 4)** Examines principles, procedures, and techniques of theatrical production including: background organization and planning, construction, painting, rigging, and operation of scenic elements, and the use and operation of lighting equipment. The laboratories are connected with the department's productions.

**THT 212 FUNDAMENTALS OF ACTING I 3.0 (1, 0, 3)** Introduces basic techniques and methods of acting. Designed for the beginning actor. No previous acting experience is necessary.

**THT 213 FUNDAMENTALS OF ACTING II 3.0 (3, 0, 0)** Continuation of 212. Emphasis is on scene study, rehearsal, and performance techniques. Prerequisite: THT 212 and permission of instructor.

**THT 214 MAKE-UP 3.0 (1, 2, 0)** Designed to familiarize the student with the basic principles and technique of stage make-up, the various types of make-up and how to apply it in order to enhance a dramatic characterization.

**THT 215 SURVEY OF THEATRE HISTORY I 3.0 (0, 3, 0)** The development of the theatre from its primitive origins to the 19th century.

**THT 216 SURVEY OF THEATRE HISTORY II 3.0 (0, 3, 0)** The development of the theatre from the 19th century to recent movements in the 20th century.

**THT 300 ADVANCED ACTING I 3.0 (3, 0, 0)** Advanced course in the methods and presentations of acting styles, from the ancient Greeks to Shakespeare. Particular emphasis will be placed on performance. Prerequisite: THT 212 and 213.

**THT 301 ADVANCED ACTING II 3.0 (3, 0, 0)** Continuation of 300. Covers Restoration to the Modern Theatre.

**THT 310 FUNDAMENTALS OF DIRECTING 3.0 (1, 1, 2)** Basic principles and procedures of directing a play. Includes directing of workshop scenes and a one-act play presented to a public audience. Prerequisite: THT 210, 212, 215, 216 and permission of instructor. May be taken for a total of six credits.

## COURSE DESCRIPTION

**THT 312 STAGE LIGHTING 3.0 (2, 0, 1)** The history and basic techniques of lighting for the stage. Lighting designs and control are stressed. Includes participation in lighting major productions. Prerequisite: THT 210.

**THT 313 SCENE DESIGN 3.0 (1, 1, 1)** Study and practice in the principles and techniques of scenic design in the modern theatre. Emphasis is on knowledge and sense of the theatre and the relationship of the contribution of the scenic designer with those of the actor, director, and playwright. Prerequisite: THT 210, 317 or permission of instructor.

**THT 314 PLAY PRODUCTION PRACTICES 3.0 (3, 0, 4)** Concentrates on the various aspects of theatre production from script to performance. An intensive experience in theatrical production for public performance. Synthesis of acting, design, technical and managerial elements in total production with emphasis on "hands-on" experience.

**THT 315 SCENE PAINTING ADVANCED STAGECRAFT 3.0 (1, 2, 0)** Training in the techniques and practices of contemporary scenic arts. Laboratory time will allow the student to demonstrate a proficiency of the techniques studied.

**THT 316 THEATRE AND STAGE MANAGEMENT 3.0 (0, 3, 0)** Fundamental aspects of management designed for the serious student of theatre. Provides concentrated experiences in major college productions as well as responsibilities in box-office and publicity.

**THT 317 DRAFTING AND SCENIC RENDERING 3.0 (1, 2, 0)** A study of techniques and conventions of drafting and full color rendering for the theatre technician-designer. Prerequisite: THT 210.

**THT 318 ADVANCED LIGHTING 3.0 (1, 2, 0)** Investigation into contemporary practices, equipment, and procedures for lighting all types of theatrical and entertainment events. Includes projects in the field. Prerequisite: THT 312.

**THT 410 (COM) INTERNSHIP 6.0 (0, 0, 0)** Supervised and evaluated participation in varied settings provides practical application of theoretical principles. May be taken from six through fifteen credits.

**THT 417 PLAY STRUCTURE AND ANALYSIS 3.0 (3, 0, 0)** Analysis of selected plays and their significance in the development of the dramatic form, including the study of the social and cultural conditions in which the playwright lived and worked.

**THT 418 PLAYWRITING 3.0 (3, 0, 0)** Studies the principles and theories of dramatic structure. Practice in writing for the stage. Prerequisite: THT 215, 216, 310, 417, and/or consent of instructor.

**THT 450 (COM) SPECIAL PROJECTS 0.0 (0, 0, 0)** A project initiated by the student to increase his/her knowledge in an advanced area not offered as a regular class. Intensive study of a subject area under the guidance of a faculty member who has special expertise in that subject. Prerequisite: Permission of instructor. May be taken from one through three credits not to exceed nine credits.

**THT 497 INDEPENDENT STUDY 0.0 (0, 0, 0)** (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**TRT 102 INTRODUCTION TO TRAVEL-TOURISM 3.0 (3, 0, 0)** Surveys the broad nature of travel-tourism with an emphasis on the interrelationships between traveller need-desire and travel fulfillment.

**TRT 300 THE TRAVEL CONSUMER 3.0 (3, 0, 0)** Provides students with a comprehensive understanding of the traveller-tourist characteristics, psychographics, and the external influences that impact on potential markets for travel-tourism products.

**TRT 312 INTERNATIONAL TOURISM 3.0 (3, 0, 0)** Studies the international tourist and the ramifications of such tourism to both sending and host countries.

**TRT 320 NORTHAMERICAN DESTINATIONS ATTRACTIONS 3.0 (3, 0, 0)** Acquaints the student with North American and West Indian travel destinations, attractions, and attractiveness. Study of the marketing and promotion of these destinations.

**TRT 321 WORLD-WIDE DESTINATIONS ATTRACTIONS 3.0 (3, 0, 0)** Acquaints the student with the world-wide travel destinations, attractions, and attractiveness. Study of the marketing and promotion of these destinations.

**TRT 322 TRAVEL-TOURISM SITE DEVELOPMENT 3.0 (3, 0, 0)** An analysis of natural/manmade tourism resources of value in travel tourism. The development of resources into viable facilities will be considered in the contexts of changing socioeconomic and political considerations.

**TRT 410 (HEC 310) TOPICAL SEMINAR IN TRAVEL-TOURISM 3.0 (3, 0, 0)** Seminar topics vary to offer exposure to the multifaceted nature of travel-tourism. Topics include: the travel agency, wholesale tour development, issues in contemporary travel and tourism, and hospitality.

**TRT 420 TRAVEL-TOURISM PROJECT SEMINAR 3.0 (3, 0, 0)** Provides an opportunity to perform individual research, problem solving, and decision making in practical situations related to travel-tourism.

**TRT 430 TOURISM SUPPLIERS AND WHOLESALERS 3.0 (3, 0, 0)** A comprehensive study of travel-tourism suppliers, especially accommodations, food services, and the ground operators followed by a study of the wholesale travel business including personal experience in package/tour development and marketing.

**TRT 431 AGENCY CRUISE MANAGEMENT 3.0 (3, 0, 0)** Examines the structure, organization, and operation of a retail agency cruise department or cruise-only agency.

**TRT 460 PASSENGER TRANSPORT 3.0 (3, 0, 0)** An analysis of spatial principles and transport systems and networks; including factors of route location, theories of interaction, and the role of all forms of passenger transport in the travel-tourism economy.

**TRT 461 CRUISE PRODUCTS 3.0 (3, 0, 0)** Designed to acquaint students with the complexity and diversity of the cruise products available in the marketplace including equipment, corporate products and marketing philosophy, destinations, and markets.

**TRT 480 CONTEMPORARY ISSUES TRAVEL TOURISM 3.0**

(3, 0, 0) Survey of contemporary issues that are faced by the travel and tourism industry. Students become familiar with the issues through intensive study of the popular and trade press.

**TRT 494 INTERNSHIP** 0.0 (0, 0, 0) Provides an opportunity to apply skills and knowledge of travel-tourism under the supervision of professionals. Two individually designed projects are required. May be taken from one through fifteen credits. Prerequisite: permission of instructor.

**TRT 497 INDEPENDENT STUDY** 0.0 (0, 0, 0) (See description in the Policies and Procedures Handbook). May be taken for one, two or three credits at one time.

**WS 410 SEMINAR IN WOMEN'S STUDIES** 3.0 (3, 0, 0) An in-depth examination of a topic in Women's Studies including women's contributions, knowledge, and perceptions taught from a cross-disciplinary, cross-cultural perspective in seminar style. This serves as the capstone course for the Women's Studies minor. May be taken for a total of nine credits. Prerequisite: ENG 100, two other Women's Studies courses, and junior standing or permission of instructor.

**XRT 101 X-RAY TECHNOLOGY I** 3.0 (3, 0, 0) Introduction to the basic elements of radiologic technology. Students will discuss and evaluate medicolegal issues, radiation protection, medical terminology, and introductory radiographic procedures.

**XRT 102 X-RAY TECHNOLOGY II** 3.0 (3, 0, 0) Basic introduction to imaging equipment and concepts of patient care. Students will learn examination considerations for the extremities, spine, shoulder girdle, pelvic girdle, and bony thorax. Prerequisite: XRT 101.

**XRT 103 X-RAY TECHNOLOGY III** 5.0 (5, 0, 0) Acquaints the student with the methods of x-ray film processing and principles of radiation biology. Emphasis will be placed on examinations of the cranium. Radiographic consideration of examinations using contrast media and film evaluation will be discussed. Prerequisite: XRT 102.

**XRT 104 X-RAY TECHNOLOGY IV** 3.0 (3, 0, 0) Studies the principles of radiographic exposure. Emphasis is placed on radiographic examinations of the urinary system and alimentary canal. Students will evaluate radiographic concepts. Prerequisite: XRT 103.

**XRT 105 X-RAY TECHNOLOGY V** 3.0 (3, 0, 0) Examines the radiographic aspects of human disease and pathology. Provides the basic concepts and techniques of radiologic quality assurance and continues to evaluate radiographic images. Prerequisite: XRT 104.

**XRT 106 X-RAY TECHNOLOGY VI** 4.0 (4, 0, 0) Reviews the knowledge and cognitive skills underlying the intelligent performance of the major tasks typically required of an entry-level radiographer. Students will learn the methodology of scientific technical reporting and evaluation. Prerequisite: XRT 105.

**XRT 203 X-RAY PHYSICS** 3.0 (3, 0, 0) Designed to introduce and provide background for the more technical aspect of radiological physics. Provides background for understanding the principles and practices of radiology, and an understanding of the electromagnetic spectrum. Prerequisite: PHY 165.

**XRT 301 CLINICAL PRACTICUM I** 2.0 (0, 0, 0) Examines the proper use of modern diagnostic x-ray equipment. Provides a general orientation regarding hospital facilities and policies. Students will perform, while under the direct supervision of a registered radiographer, examinations presented in XRT 102. Prerequisite: XRT 101.

**XRT 302 CLINICAL PRACTICUM II** 2.0 (0, 0, 0) Students continue to practice the skills learned in XRT 301, and expand their clinical education into newer areas. They will perform, while under the direct supervision of a registered radiographer, examinations presented in courses XRT 102 and 103. Patient contact and responsibilities will increase in this course. Prerequisite: XRT 102 and 301.

**XRT 303 CLINICAL PRACTICUM III** 2.0 (0, 0, 0) Provides more advanced examinations presented in XRT 103 and 104. Training in the modalities of Nuclear Medicine and Computerized Tomography will be provided with a two-week rotation through each area. Students will demonstrate traumatic examination skills in the Emergency Room X-Ray Department practicum. Prerequisite: XRT 103 and 302.

**XRT 304 CLINICAL PRACTICUM IV** 3.0 (0, 0, 0) Students continue to perform radiographic examinations in the general diagnostic clinical area along with rotations through Special Procedure, MRI, Ultrasound, and Radiation Therapy. Assignments will be given involving the quality assurance testing of diagnostic x-ray equipment. Prerequisite: XRT 104 and 303.

**XRT 305 CLINICAL PRACTICUM V** 2.0 (0, 0, 0) Performance of radiographic examinations that are done by entry-level radiographers. Patient contact and responsibility will increase with examinations performed under indirect supervision. A clinical elective will be selected for further specialization in any area of radiology. Prerequisite: XRT 105 and 304.

















